



GeoPro 1.5 Web Application Administration Guide

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IMPORTANT: About using this guide

GeoPro was designed to enable organizations to monitor and manage employees using a range of commercially available GPS-enabled communications devices. Currently the GeoPro solution is compatible with the proprietary GeoPro Messenger device, and the SHOUT Nano device manufactured by NAL.

*The GeoPro Messenger device is 100% compatible with all functions of the GeoPro solution as described. **The features of other GeoPro compatible commercial devices may vary the functionality that is supported in the GeoPro Web Application or on the device itself.** If a specific function is not supported, it will be un-selectable within the application interface. Please consult this guide along with the appropriate device user manual, or speak with a GeoPro authorized distributor for more information.*

GeoPro Web Application Overview

This document provides a reference to the monitoring and administrative functions of the GeoPro Web Application. It is intended for monitoring personnel and GeoPro Web Application Administrators. It assumes a degree of familiarity with the application, gained either through prior work experience or training.

The document sections are divided by menu options and main functions to guide you step by step.

The administrator uses a browser interface into the GeoPro Web Application Server to monitor and configure GeoPro devices and users. The GeoPro Web Application interacts with the GeoPro Gateway, which in turn communicates with GeoPro devices over the Iridium satellite network. In addition, the GeoPro Web Application communicates with the GeoPro Sync Client (see the *GeoPro Messenger User Guide* and GeoPro Sync Client User Guide for details) to synchronize and update the GeoPro device with the user's personal address and message books.

[Figure 1](#) provides a high level overview of the GeoPro network.

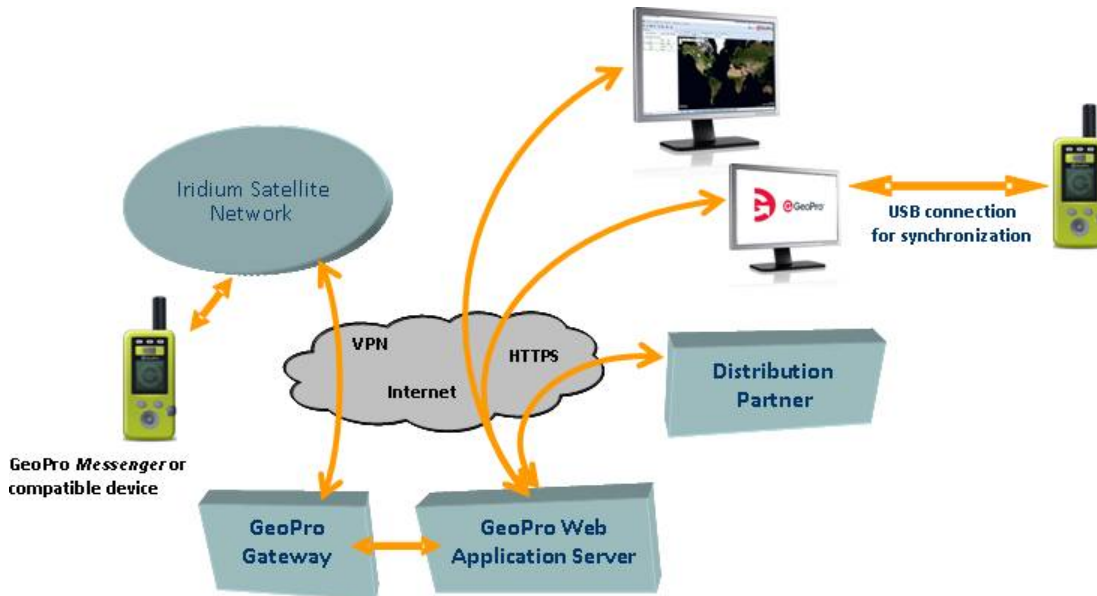


Figure 1: Simplified GeoPro system architecture

The GeoPro Web Application is responsible for executing the business logic rules for the GeoPro Services and provides a browser-based user interface that enables access to those services. The GeoPro Web Application supports the following browsers:

- Mozilla Firefox 3.5 or higher (preferred)
- Microsoft Internet Explorer 7.0 or higher

Logging In to the GeoPro Web Application

To log in to the GeoPro Web Application:

1. Enter the following URL in your browser address field: <https://app.geoprosolutions.com>.
2. Type your **Username** and **Password**, and then click **Login**. The GeoPro Web Application launches on the **Map View** by default.

Your username is the email address to which you received your user ID and initial password sent to you during the on-boarding process. If you forgot your password, click the [Forgot your password?](#) link, enter your email address, and then click the button. A new password will be sent to your email.

Main Window

The main window is defined by the GeoPro Web Application Administrator when setting up role profiles. Administrators log in directly to the Admin Center, and have the option to switch to Device Manager. The name of the logged in user displays in the upper left corner. The map seen upon log in depends on the corporate map selection. There are eight maps available, as illustrated below.



Microsoft Bing Maps



Operational Navigation Maps



USA Topo Maps



World Imagery Map



World Shaded Relief



World Street Map



World Terrain Base



World Topo Map

The desired map is chosen from the **Configuration > Setup** screen, described in the [Configuration Setup](#) section. Once a map is selected, everyone who logs on to the GeoPro Web Application will see the map.

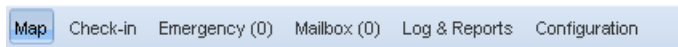
Throughout this document, the Bing World Map will be used for illustration purposes.



The GeoPro Web Application Admin Center default window consists of these main areas:

- **Main tab bar** – provides access to services, logs and reports, and administrative configuration of the GeoPro Web Application
- **Action bar** – provides access to user actions including tracking, locate, check-in, sending messages, and declaring 'Emergency' or 'Heightened Risk' states
- **View tab bar** – toggle between a map (default view) showing user locations and a list of GeoPro device users and events; Map View is the default view
- **Refresh control** – select 'Manual' or 'Automatic' (default) screen refresh mode
- **Bookmark selector** – choose saved bookmarks to display on the map (Map View only)
- **Date Range selector** – choose the period over which to view breadcrumbs (Map/List View)
- **Message Type filter** – allows filtering by message (breadcrumb) type (Map/List View) to select which breadcrumbs display on the map or which events are listed on the List View
- **Waypoints selector** – choose saved waypoints to display on the map (Map View only)
- **User List panel** – displays user name and associated "breadcrumb ID" (if available); their current device type, and other status information

The main tab bar contains six (6) tabs that provide different ways to present mapping information and services. To access each of the services, click the appropriate tab. For example, the Map tab contains tracking and location information, that is, icons that are "tracked" via those services. On the **Map** tab, you can do an on-demand Check-in request, send a message to a device, or send a Locate request to a device, etc. Only the active tab is highlighted.

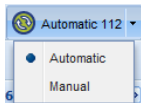


These are the main tabs:

- **Map** – geographical information on device users who currently have a GeoPro compatible device assigned. You can toggle between a Map View and a List View of the users' data.
- **Check-in** – upcoming and overdue check-ins

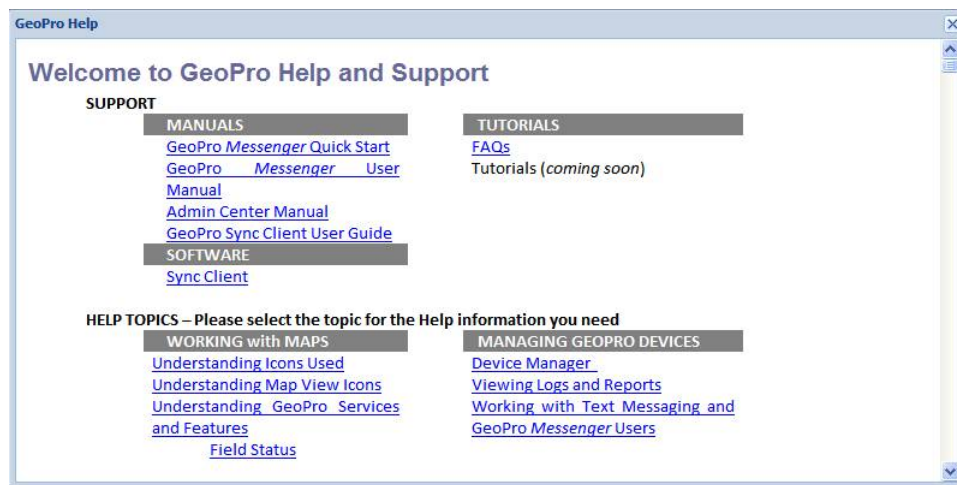
- **Emergency** – contains a map showing only devices in the Emergency state. You can message the devices and follow the message sequences and conditions until the emergency is cancelled or closed. If you select a device on the Map tab and put it into Emergency mode, the breadcrumb icon displays in red on the Map tab and appears on the Emergency tab.
- **Mailbox** – contains a list of message exchanges to and from a device user and the Administrator. This tab is used for managing, sorting, and working with text messages.
- **Logs & Reports** – facilitates creating, printing, or saving and exporting reports in various formats.
- **Configuration** – contains ten (10) tabs for specific administrative functions, depending on the user's role-based permissions profile.

The refresh control drop-down lets you set the screen refresh mode to either **Manual** or **Automatic** (default). Data refreshes are done automatically, with a default refresh rate of 60 seconds. The refresh rate can be personalized by switching to **Device Manager** and selecting **Profile**, and then **Edit Profile**. The icon displays the number of seconds remaining () and updates in real time. When working in manual mode (), click the icon to display new event updates. While in manual-refresh mode, the system times out after a period of inactivity and logs you out.



Accessing Help, Support, and Documentation

To access Help text, documentation, or other support information, on the upper-right corner of the Web Application, click the [Help](#) link. A pop-up appears, as illustrated below:



Click the necessary link to get Help, or download documentation or the Sync Client.

GeoPro Services and Features Overview

The GeoPro services can be divided into three main groups:

- *Safety* – including Emergency and Check-in functions
- *Communication* – refers to the use of text messaging to communicate with others via email, SMS, the GeoPro web application or other GeoPro compatible field devices
- *Location-based* – refer to all services intended to locate the user, including tracking and an on-demand locate capability.

Emergency

An Emergency is typically declared by a field user by pressing the **Emergency** button on their GeoPro compatible device, but can also be declared by an Administrator on behalf of a user. “Emergency mode” remains in effect until either the situation is resolved and the emergency state is closed by the GeoPro Web Application user, or it is cancelled by the device user. Even emergencies cancelled by the device user must be closed by the GeoPro Web Application user. Closing an emergency is similar to closing a trouble ticket: it provides an auditable description of how the emergency was resolved.

The GeoPro Web Application Administrator configures the Emergency state escalation process by specifying the escalation rules to trigger and manage the emergency. All messages and text messages exchanged during an Emergency state with the device in emergency mode contain the GPS data and are preserved by the GeoPro Web Application.

For more information, refer to the [Managing Emergencies](#) section.

Check-in

The Check-in service allows an organization to monitor the safety and location of remote workers through an automated, or manual, tracking and escalation process that is based on rules defined by administrators in the GeoPro Web Application. The Check-in service differs from Tracking, Locate, or See-Me services as check-ins can be scheduled or unscheduled from the GeoPro Web Application Admin Center and require the device user to make an explicit (manual) response to acknowledge a check-in request. GeoPro *Messenger* users can also temporarily suspend a check-in (schedule) from their device.

For users with a Check-in Schedule using other GeoPro compatible devices, the Admin must use the **Enable Check-in Schedule** icon to enable an assigned check-in schedule, and must use the **Disable Check-in Schedule** icon to disable the schedule.

For more information, refer to the [Managing Check-ins](#) section.

Messaging

Users with GeoPro compatible devices can send free-form or predefined text messages to an email address, SMS address, GeoPro address or the GeoPro Web Application. Users with GeoPro compatible field devices can communicate with one another via their GeoPro addresses, and can also receive text messages either directly, or as reply, from an email address, SMS address, or another GeoPro *compatible* device user.

For more information, refer to the [Using Text Messaging](#) section.

Locating Services

This is an umbrella term used to define a group of services that involve location information.

The Tracking service is an automated event which involves a breadcrumb reporting interval defined either on the GeoPro compatible device or the GeoPro web application. It is assigned to a specific device, which subsequently reports its location at the defined intervals without user intervention. The Locate service involves a GeoPro Web Application user selecting a user with an active device and requesting its current location; the GeoPro compatible device responds without any user intervention. The See-Me service is specific to the GeoPro *Messenger* device; it enables the device user to send an email recipient a link to show their location on a web map, and include an optional text message.

For more information, refer to the [Using Locating Services](#) section.

See-Me

This service is initiated using the GeoPro *Messenger* device only and is not visible within the GeoPro Web Application. A GeoPro *Messenger* user can send a location update to someone by selecting the 'See-Me' function on the device screen and selecting one or more addresses to send the See-Me update. The See-Me update is sent to an email address and displays as a message with a link to a map showing their location. There's also an option for a recipient to reply to the sender by using the message box provided in the See-Me message.

Locate

The Locate service is an on-demand tracking function that allows a GeoPro Web Application user to locate selected users from the Map View. It is different from the Check-in service in that the device receives the Locate command from the GeoPro Web Application and responds with location information without the device user's intervention. The Locate service is also different from the Tracking service in that the "Locate" function cannot be given defined intervals.

Tracking

The Tracking service is an automated breadcrumb function that can be initiated either by a GeoPro Web Application user or a user with a GeoPro compatible device. The GeoPro Web Application Administrator can select one or a series of devices (users) and invoke the tracking function, along with a reporting interval. A device user can select 'Tracking' and turn it on, set the reporting interval, or turn it off.

Waypoints

The Waypoints service is an on-demand service that allows users to create specific location coordinates. It is different from "breadcrumbs" because waypoints are a permanent overlay on the map that a GeoPro Web Application user is viewing. A field user can define and save a location as a waypoint on their GeoPro compatible device, and optionally upload it to the GeoPro Web Application over-the-air (OTA) or through the GeoPro Sync process.

Device Status

GeoPro *Messenger* devices send the Web Application a Field Status message whenever the device user sets Field Status to "In Field" or "Out of Field". When Field Status is set to 'In', a GeoPro *Messenger* is considered to be in the field and ready to be used. When it is set to 'Out', the GeoPro

Messenger is considered to be back from the field and available for re-assignment. Check-in schedules apply only while Field Status is set to 'In'.

NOTE: While Field Status is set to "Out", messages sent from the Web Application are not received by the GeoPro *Messenger* device user until the device user initiates a message (event) from the device, or changes Field Status to "In".

Address Book

The Global Address Book contains a contact's name, email address, SMS address, and a GeoPro address (for GeoPro users). It can hold names of GeoPro device and Web Application users and non-GeoPro users (anyone with an email or SMS address).

The Tenant-level Global Address Book is created by:

- Inserting users in the 'Add New User' dialog box, which auto-populates the Address Book
- A GeoPro Web Application Administrator typing an external address in the 'Add New Contact' dialog box

For more information, refer to the [Managing the Global Address Book](#) section.

Configuration

The Configuration tab consists of functions used by the GeoPro Web Application Administrators to administer the GeoPro Web Application, and it contains the following ten (10) tabs:

- Setup
- Organizations
- Roles
- Check-in Schedules
- Users
- Address Book
- Message Book
- Response Teams
- Devices
- Waypoints

For more information, refer to the [GeoPro Web Application Administration](#) section.

GeoPro Web Application Monitoring

The monitoring tasks of the GeoPro Web Application are performed by designated personnel, and include checking for pending waypoints, creating bookmarks, working with breadcrumbs, messages and check-ins (see [Figure 2](#)). This is only a suggested action sequence; you can create your own approach to monitoring.

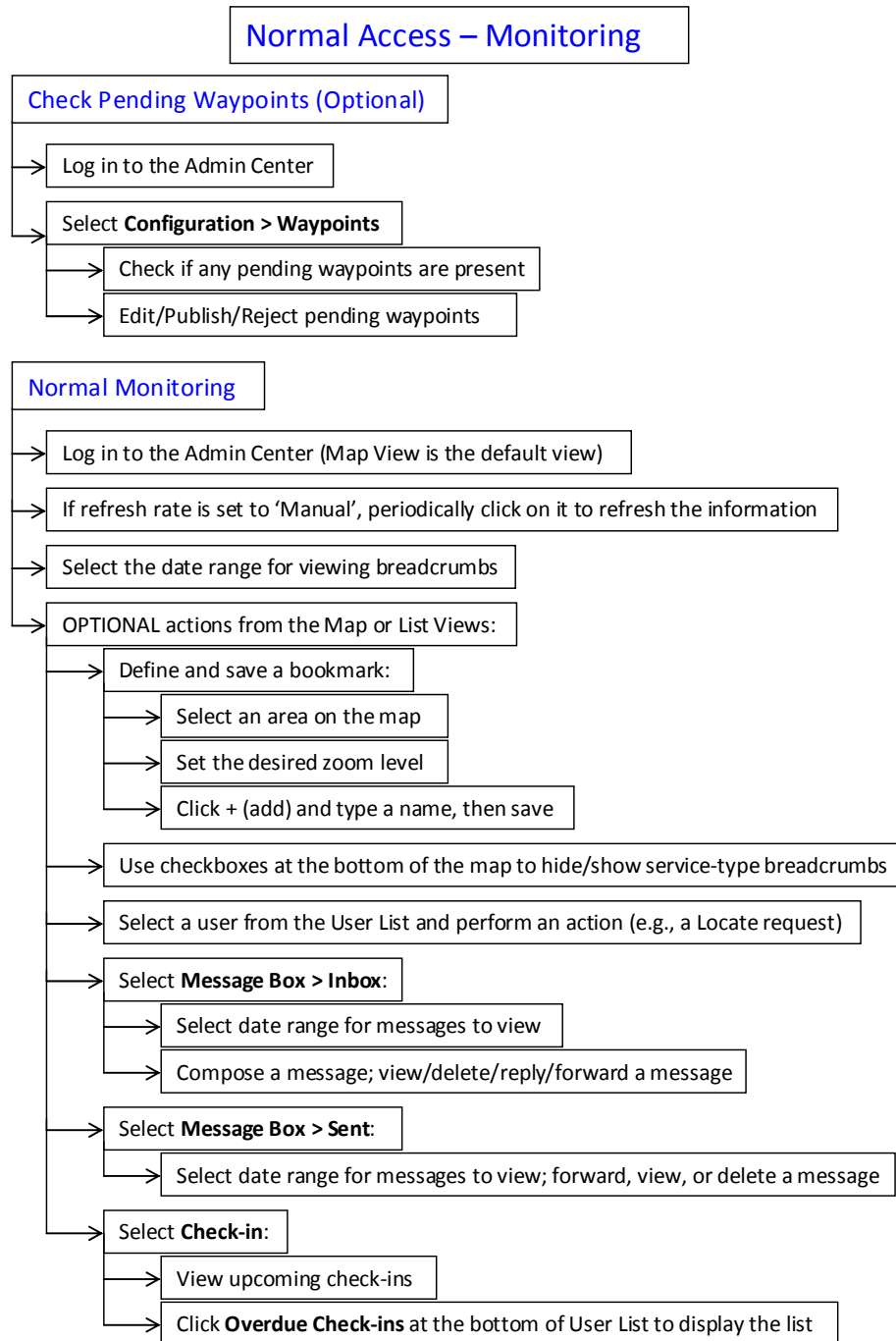
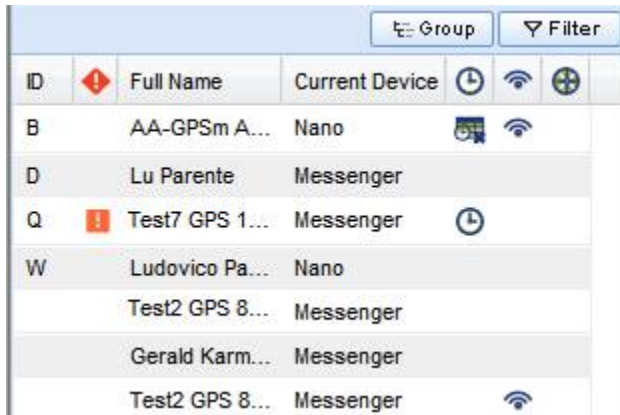


Figure 2: Normal monitoring access workflow

Working with the User List

The User List in the left pane of the Application Admin Center provides the names of GeoPro device users and the device type currently assigned as well as associated status and service type information. (In the figure below, all are assigned GeoPro *Messenger* devices.) Selecting a user from the list and specifying a usage period displays the user's movement on the map in the right pane as a collection of breadcrumbs (see [Working with Breadcrumbs](#)).



ID	Full Name	Current Device	Emergency	Check-in	Locate User
B	AA-GPSm A...	Nano			
D	Lu Parente	Messenger			
Q	Test7 GPS 1...	Messenger			
W	Ludovico Pa...	Nano			
	Test2 GPS 8...	Messenger			
	Gerald Karm...	Messenger			
	Test2 GPS 8...	Messenger			

For a description of User List icons, refer to [Table 1](#).

Table 1: User List information icons

Icon	Description
ID	Identifier – contains the letter (or letters) that identify each user on the map. Clicking on the icon sorts the User List alphabetically by the identifying letter.
	Emergency icon – the column under this icon will contain the emergency icon () for users who are in Emergency Mode. For users who are in Heightened Risk, the column shows the Heightened Risk icon (). Clicking on this column sorts the users by Emergency and Heightened Risk.
	Check-in Assigned, but not enabled – this icon is found in the Check-in column of the User List status. It indicates that the user has a Check-in schedule assigned, but the schedule is not currently active. To activate it, click the Enable Check-in Schedule icon ()
	Check-in icon – indicates users who have a Check-in schedule assigned. Clicking on this column sorts the users by who have a Check-in schedule assigned.
	On-demand Check-in Pending icon – indicates users who have an On-demand Check-in issued by the GeoPro Web Application Administrator. The pending icon is removed once the device user responds to the On-demand Check-in.
	Check-in Suspended icon – indicates device users who have a suspended Check-in. While a Check-in is suspended, missed check-ins do not result in heightened risk for the user and do not activate the user's Escalation Team.
	Locate User Pending icon – displays when the GeoPro Web Application Administrator initiates a Locate User action and until the user's device responds with a location update. Once a response is received, the icon is cleared.

	Tracking Active icon – displays for users who have tracking turned ON. This icon appears once at least one tracking breadcrumb is received by the GeoPro Web Application.
	Tracking Activation Pending icon – displays when the GeoPro Web Application Administrator selects a user from the User List and invokes the Tracking action. It displays until the GeoPro Web Application receives the first tracking breadcrumb from the device. Once received, the display changes to the Tracking Active icon.

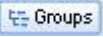
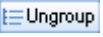
In addition to scheduled check-in or tracking intervals, it is possible from the GeoPro Web Application to request an on-demand check-in, turn on tracking or set a new interval, and to request a location update from a user's device. If a GeoPro Web Application Administrator selects a user from the User List and requests an on-demand check-in, tracking interval, or location update, the indicators show a clock to signal that the application is waiting for a response. The clock icon will be removed once the user or device responds.

GeoPro *Messenger* users who have a check-in schedule may opt to “suspend check-in” for up to 8 hours. When a field user suspends check-ins, the icon changes to Check-in Suspended (). A device user would suspend check-in if, for example, the user is in the field, but wants to go to sleep and not be interrupted to check-in.

Customizing the User List View

You can modify how information is presented in the User List by grouping users or applying filters based on specific search criteria (see [Table 2](#)).

Table 2: User List organization and search buttons

Icon	Description
	Group Users by User Group – if GeoPro device users are organized into groups, clicking this icon divides the users into their respective groups. Users who belong to more than one group, will appear under each group to which they belong. Users who do not belong to a group appear under the title “Not assigned to any group”.
	Do Not Group Users by Group – in the event that users are assigned to groups, but the Administrator would like to see the users in a list, clicking this icon will remove the groups and list the users.
	User Filter – used to search for (filter) users according to specific conditions, such as First or Last name, Group name, Organization name, Check-in status, or User status (for example, emergency or heightened risk). Up to three filters may be combined in the search.

Viewing Users in Groups

To view the User List organized into groups, click **Group users into user groups** . The User List is sorted according to user group assignments. There are two system-defined groups:

- Unassigned Devices – displays any device not assigned to a user generating traffic
- Not assigned to any group – displays all users who are not assigned to a group

Users assigned to one or more groups show up under the respective group names, for example, ‘Fire Team Leaders’. Groups can be defined, edited, and deleted in the **Configuration > Users** window (see [Managing Device Users](#)).

Ungroup Filter		
ID	Full Name	Current Device
Group 1 (3 Users)		
	Sean Coburn	Messenger
	Gerald Karm...	Messenger
	gpstester1 g...	Messenger
Test 2 (3 Users)		
B	GPSm TesterM	Nano
	Wesley Robb	Messenger
	Sean Coburn	Messenger
Not assigned to any group (7 Users)		
D	Lu Parente	Messenger
	Test2 GPS 8...	Messenger
	Jeff Wilson	Messenger
	Heart Beat	Messenger

Filtering User List View

To filter users displayed in the User List:

1. Click **User Filter** . The user filter displays above the User List.

Group Filter		Filter
select filter		Apply
select filter		Clear
select filter		Cancel

2. Select up to three (3) filters from the drop-downs. You can use these filter parameters:
 - First name
 - Last name
 - Group
 - Organization
 - Check-in status
 - User status
 - Current device
3. Depending on your selection, an additional field displays beside each drop-down. Type or select your filter parameters.

Group Filter		Filter
First name	type match text	Apply
Current device	select current device	Clear
Checkin status	select checkin status	Cancel

4. Click **Apply**. The User List is updated based on the information you provided. To change your filter parameters, click **Edit**. To delete a previous user filter, click **Clear**.

NOTE: You must first clear all applied filters before you can hide the User Filter.



User List Actions

The User List actions are summarized in [Table 3](#) and [Table 4](#). Use the Action bar to access these services. For more information on these services, refer to the relevant sections of this guide.



Table 3: Declaration and closure action buttons

Icon	Description
	Declare Emergency – first select a user from the User List and click this button to place the user in Emergency Mode from the GeoPro Web Application.
	Declare Heightened Risk – select a user from the User List and click this button to place the user in Heightened Risk from the GeoPro Web Application.
	Close Emergency – select a user from the User List on the Emergency Map and click this button to close the emergency. This action can be done only from the Emergency Map screen and requires a closing note describing why the emergency is closed. The Emergency Response Team is notified that the emergency is closed. Once closed, an emergency no longer appears on the Emergency Map.
	Cancel Heightened Risk – select a user from the User List who is in Heightened Risk and click this button to cancel the Heightened Risk. Once cancelled, the user's Escalation Response Team is notified that the user is no longer in Heightened Risk.
	Manual Check-in – allows a GeoPro Web Application Administrator to check-in on behalf of a device user from the GeoPro Web Application. The Administrator is required to enter a note explaining why the check-in was done from the GeoPro Web Application, such as the Administrator spoke to the field user.

Table 4: Service action buttons

Icon	Description
	Set Tracking – first select a user from the User List and click this button to turn tracking off or on from the GeoPro Web Application. To turn tracking ON, select an interval.
	Locate User – select a user from the User List and click this button to request the user's device to report its current location. The location update will appear on the Map screen.
	Request On-demand Check-in – select a user from the User List and click this button to request the selected user to check-in.
	Message User – select a user from the User List and click this button to send the user a message. A maximum of 160 characters can be sent at one time.

Icon	Description
	Message User Response Team – select a user from the User List and click this button to send the user’s emergency or escalation response team a message. A maximum of 160 characters can be sent at one time.
	Center User on Map – once a user is selected on the User List, clicking this icon centers the user on the map, making it easier to find the user and to zoom in or out on the map while keeping the user’s breadcrumbs centered.
	Enable Check-in Schedule icon – initiates a Check-in Schedule so that it takes effect.
	Disable Check-in Schedule icon – cancels a Check-in Schedule so that it no longer takes effect.
	Refresh Screen – this button is associated with either Manual or Automatic refresh options. Click the button to force a refresh or click the drop-down to select either ‘Manual’ or ‘Automatic’ refresh option. For Automatic refresh, the refresh interval is set in Device Manager under the ‘Profile’ tab.

Using the Map View

When you log in to the GeoPro Web Application, the map view (default) displays devices located on a specific map area as “breadcrumb icons” based on the most recent GPS readings. Since the map display defaults to a 24-hour window, if there are no breadcrumbs visible, adjust the date range.

In addition to tabs, the general layout displays a central map area that provides the focal function for this tab. Secondary administrative functions, such as password management, user profile or device management, are available under the ‘Configuration’ tab.

Map View Overview

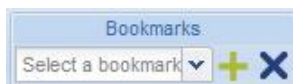
In the GeoPro Web Application main window, you can select to view either the map (‘Map View’ tab) or a listing of all your events (‘List View’ tab).

The Map View displays a map of the world and allows you to track and locate your GeoPro users. The map which displays is based on the map source selected by an Administrator. Icons representing electronic tracking breadcrumbs on the map area are based on the most recent GPS readings. The breadcrumbs that appear on the map default from “yesterday” to “today”, but can be modified using the [Show breadcrumbs during](#) calendars and time selectors ().



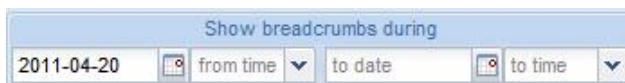
Bookmarks List

Bookmarks let you quickly access saved geographical locations on the map, including the precise position and map zoom level.



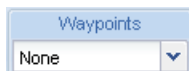
Usage Period Calendars

Click on  to open the usage calendar. Usage period enables you to filter the device usage for the selected user. Select "from" and "to" dates and, optionally, time period. The map view displays only information relevant for the specified period.



Waypoints List

The Waypoints list contains waypoints created by GeoPro device users. Select a specific waypoint (for example, airport or conservation area), or specify to show all defined waypoints. The waypoints display on the map using predefined icons. When you mouse-over a waypoint, a callout displays information including description, category, creator's name, and the date of creation.



Map Basics



Use the following actions to navigate and customize the map:

- If you are using Bing maps, you can opt for different views:
 - o To view a road and highway map, click the **Road** button.
 - o To see an image view (photo or satellite) of the map, click the **Aerial** button.
 - o To see a combined road and aerial map, click the **Hybrid** button.
- To zoom in, click the plus (+) button, hold the button to zoom in continuously, or use the mouse wheel.
- To zoom out, click the minus (-) button, hold the button to zoom out continuously, or use the mouse wheel.
- To expand the Map or List View, click and drag the line separating the two panes.
- To expand/collapse breadcrumbs, click the (+/-) button attached to a breadcrumb
- To move the map, place your cursor on the map, click and hold the left mouse button, and drag the map.

Creating Bookmarks

You can bookmark certain map locations and associated coordinates for quick future reference.

To add a new bookmark:

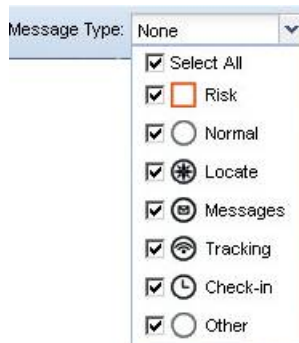
1. In the Map view, navigate to a location that you want to bookmark, zoom in as needed.
2. When you have centered on that location, in the **Bookmarks** area, click **Add Bookmark** .
3. Enter a bookmark name and then click **Add**. The bookmark is saved and added to the Bookmarks list. You can select it in the list to go directly to the saved location.

Table 5: Map filter buttons

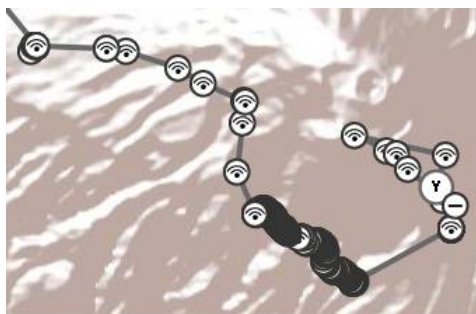
Icon	Description
	Add a Bookmark – on any Map page, the Administrator can click Add Bookmark to provide a name and save the location and zoom level of the map.
	Delete a Bookmark – on any Map page, the Administrator can click Delete Bookmark to remove the bookmarked location and zoom level of the map.

Using the Message Type Drop-down Menu Filter

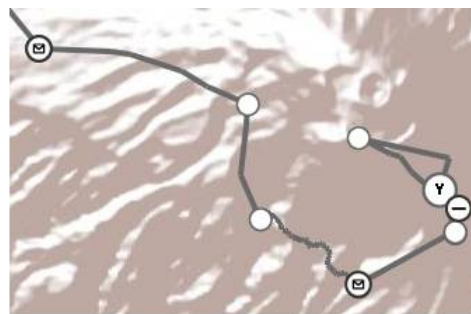
The Message Type drop-down menu provides breadcrumb filtering by service type. The drop-down also allows you to filter breadcrumbs based on state (normal or high risk).



All breadcrumbs are displayed by default. If a service type checkbox is selected, any breadcrumbs of that service type will display on the map. To hide breadcrumbs of a particular service type, clear the checkbox. Hiding a service type breadcrumb removes the circle shown on the map associated with the unchecked service-type breadcrumb, as illustrated in the figure, below. The “head-crumb” (the most recent user location) cannot be hidden.



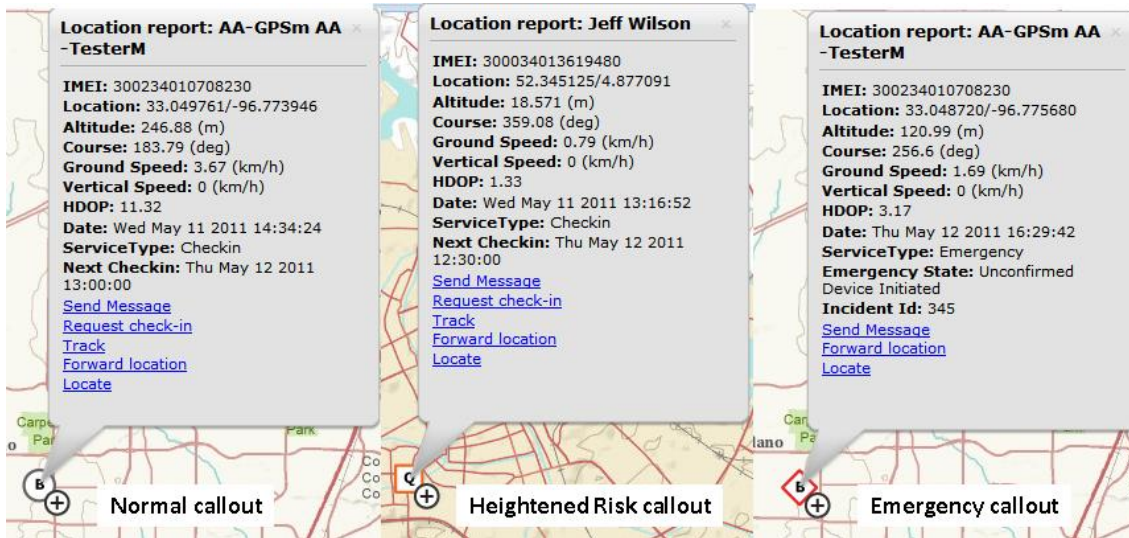
Showing all breadcrumbs



Hiding all Tracking breadcrumbs

Displaying the Location Report Callout

When you place the mouse pointer over a breadcrumb, a location report callout displays with information about the device user such as user name, location, state, etc. While the callout is open, the mouse can move within it and select links. When the mouse moves off the breadcrumb, the callout stays open until you hover over a different breadcrumb, click on an area of the map, or click the “X” at the top-right of the callout.



The following information appears on each location report callout:

- User name
- Device IMEI
- Location (in the coordinate system chosen by the Tenant organization)
- Altitude – current geographical altitude
- Course – current geographical course
- Ground speed – the average speed of movement
- Vertical speed – the average speed of ascent or descent
- HDOP – the Horizontal Dilution of Precision; a measure of the accuracy of the GPS location information. Values greater than 10 are considered false (usually due to multi-path interference) and are not plotted, but are listed in the List View in italic, red type.
- Date and time stamp – for See Me or Waypoints the time stamp reflects when the selected breadcrumb was created. For all others, the time stamp reflects the GPS date-time when the breadcrumb was transmitted
- Service Type (Emergency, Check-In, Tracking breadcrumb, Waypoint, Locate response)
- Status information (depends on Service Type):
 - Emergency state (if in emergency) - Unconfirmed, Confirmed, GeoPro Web Application initiated and Incidence ID
 - Check-in status – Next Check-in time (if any)
 - Locate request time (no additional information shown)
- Tracking interval – the interval set in the **Initiate Tracking** dialog box (see [Tracking](#))
- Actions available depend on whether or not the service type is 'Emergency'. Normal or Heightened Risk breadcrumbs allow the following actions:
 - **Send Message** – send message to the selected device user
 - **Request Check-in** – send an On-demand Check-in request to the selected user
 - **Tracking** – initiate tracking on the selected user; set the tracking interval
 - **Forward location** – send location coordinates to an email, SMS or GeoPro address

- **Locate** – send a request for a location update

NOTE: For Emergency breadcrumbs, only **Send Message**, **Forward location**, and **Locate** actions are available. **Tracking** is automatically turned on when an emergency is declared.

Centering a User in Map View

To center the selected user's breadcrumbs on the map:

1. On the **Map** tab, select a user in the User List.
2. Click **Center User on Map** . The user's breadcrumbs reposition to the center of the map, making it easier to find the user and to zoom in or out on the map while keeping the user's breadcrumbs centered.

Working with Breadcrumbs

Breadcrumb Icons

Breadcrumbs follow the GeoPro device user's movements in the field and mark key events like check-in or locate. They track the state (a combination of color and image, such as red diamond for Emergency State) of the GeoPro device, the service type, and the time and direction of the breadcrumb movement. When a new head-crumb appears, it indicates movement and displays on the next location, and the existing head-crumb changes shape to a regular breadcrumb, as illustrated in Figure 3.

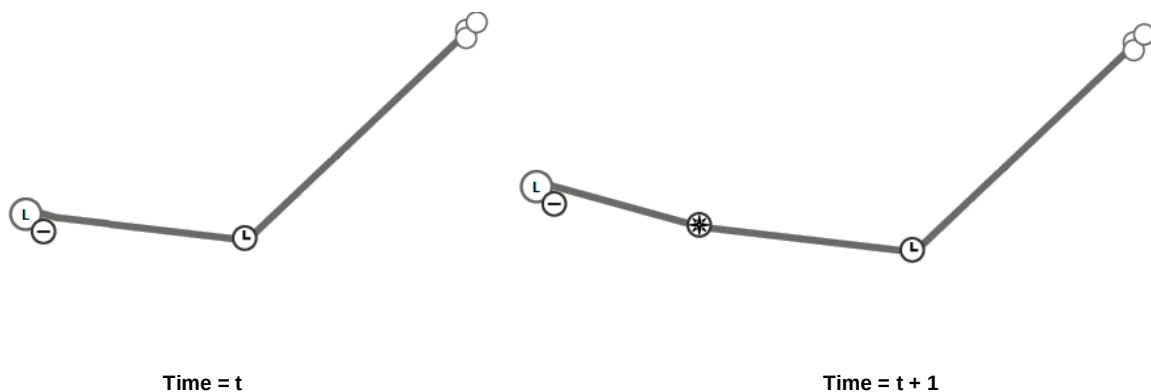


Figure 3: A headcrumb icon changes shape to a regular breadcrumb (at $t + 1$) when a GeoPro device user has moved to another location

The device icon represents the service used to create the breadcrumb; that is, check-in or locate will have different icons. The largest breadcrumb is the most recent one, and it indicates the last message received from the device and contains expand (+) and collapse (-) indicators. Regardless of the service type that generated a breadcrumb, each user's breadcrumbs are linked, each showing the map icon for its service type. See Table 7 for a description of the service type map icons.

NOTE: When you mouse-over any breadcrumb, location report details appear in the callout. To reduce visual clutter you can select only the services you want to view, and collapse the breadcrumbs of GeoPro Messenger users. The plus (+) and minus (-) icon toggles to expand or collapse all destination breadcrumbs.

The number of breadcrumbs visible at any time depends on the zoom scale, breadcrumb density, time frame, and whether breadcrumbs are expanded or collapsed. Moving (scrolling) the map or zooming in and out will bring other user breadcrumbs within view.

To center a selected user on the map, click **Center User on Map** . Centering a user on the map makes it easier to find the user and to zoom in or out on the map while keeping the user's breadcrumbs in a central view.

Map View User States

The GeoPro device users appear in one of three states on the GeoPro Web Application Admin Center map:

- **Emergency** state – represented by a red diamond icon ()
- **Heightened Risk** state – represented by an orange square icon ()
- **Normal** state – represented by a circle ()

The map icons showing user state are described in [Table 6](#).

Table 6: Map user state head-crums

Icon	Description
	Emergency – this style breadcrumb is generated during an emergency. Several such breadcrumbs may be generated until the emergency is closed or cancelled.
	Emergency hover-over – the emergency breadcrumb displays a shadow and turns yellow when the mouse cursor hovers over a user name in the User List.
	Normal – this style breadcrumb is generated for normal conditions that are not a service-specific event.
	Normal hover-over – the normal breadcrumb displays a shadow and turns yellow when the mouse cursor hovers over a user name in the User List.
	Heightened Risk – this style breadcrumb is generated when a user is in heightened risk. Several such breadcrumbs may be generated until the user is removed from heightened risk level by the GeoPro Web Application Administrator.
	Heightened Risk hover-over – the heightened risk breadcrumb displays a shadow and turns yellow when the mouse cursor hovers over a user name in the User List.

Map View User Services

Each GeoPro service has an associated icon or image representation on the map. These icons and services are described in [Table 7](#).

Table 7: Map service breadcrumbs

Icon	Description
	Check-in – this style breadcrumb becomes visible when a Check-in is generated by a device user.
	Locate – this style breadcrumb becomes visible when the device responds to a Locate request from the GeoPro Web Application.

Icon	Description
	Tracking – this style breadcrumb becomes visible when the device generates a tracking update.
	Messaging – this style breadcrumb becomes visible when the user generates a text message. The map breadcrumb indicates the location at the time the message was sent.
	Expand Breadcrumb Trail – clicking this symbol alongside the “head-crumb” (latest breadcrumb) expands the breadcrumb trail so that more crumbs are visible.
	Collapse Breadcrumb Trail – clicking this symbol alongside the “head-crumb” (latest breadcrumb) collapses the breadcrumb trail so that only the head-crumb is visible.

Using the List View

The List View shows all GeoPro Web Application events from the most recent to oldest, for the GeoPro device users in the User List. By default, events are applicable to all users; however, selecting one or more users [Ctrl/Shift+click] in the User List displays events only for those users. Deselecting all selected user names in the User List displays all user events in the List View. Multiple pages are possible, depending on the filter options; each page displays up to 25 events.

Show breadcrumbs during				Message Types			
2011-02-08	from time	to date	to time	None			
Time	Firstname	Lastname	ServiceType	Latitude	Longitude	Altitude(m)	GPS Valid
2011-04-11 11:48:05	Lu	Parente	Emergency	43.590048	-79.591151	111.140	yes
Device user Lu Parente denied emergency							
2011-04-11 11:46:51	Lu	Parente	Emergency	43.590025	-79.591218	112.110	yes
Device user Lu Parente declared emergency							
2011-04-11 11:32:50	Lu	Parente	Check-in	43.589931	-79.590908	122.720	yes
Device user Lu Parente sent check-in message of type UnsolicitedCheckInReceived							
2011-04-11 11:29:16	Lu	Parente	Text messaging	43.589953	-79.590970	114.400	yes
Device user Lu Parente sent a text message: Have arrived on-site.							
2011-04-11 11:24:33	Lu	Parente	Text messaging	43.589923	-79.590961	111.180	yes
Device user Lu Parente sent a text message: NEG2							
2011-04-11 11:22:27	Lu	Parente	Text messaging	43.589958	-79.590981	109.180	yes
Device user Lu Parente sent a text message: Am tired. Going to bed.							
2011-03-16 15:12:17	Lu	Parente	Emergency	43.589840	-79.591611	114.790	no
Device user Lu Parente declared emergency							

Page 1 of 3

Displaying events 1 - 25 of 53

Map Source: Microsoft Bing Maps Coordinate System: Decimal Degrees (WGS84)

Events sent during an emergency have the emergency indicator on the left. Events with an inaccurate GPS reading are in red italics.

List View Overview

Paging Events

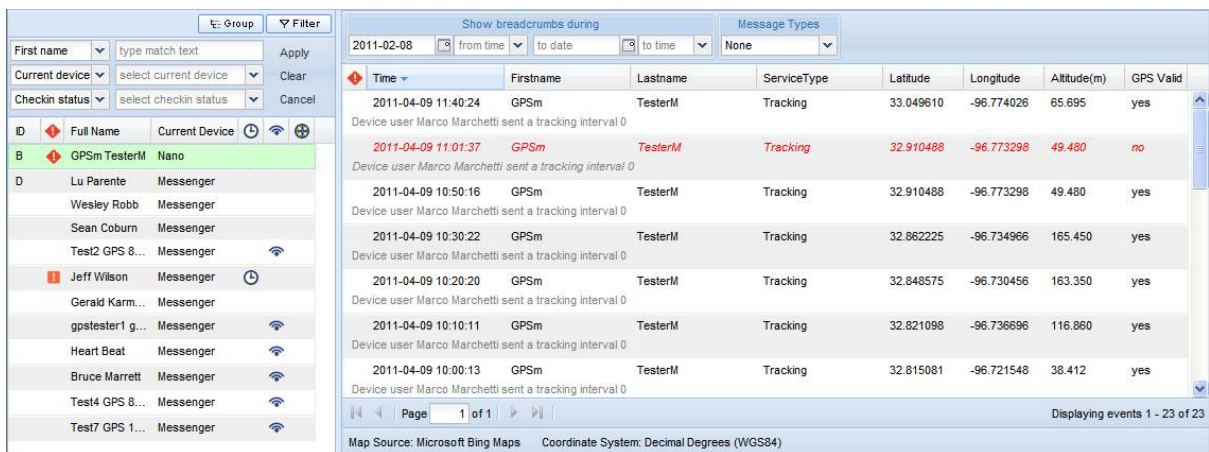
If the event list spans multiple pages, you can use the page navigation bar; the scroll bar moves up and down the event list on the displayed page.

Page 1 of 3	Displaying events 1 - 25 of 53
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Selecting Users to View

To view events associated with a GeoPro device user in the list view, using a single mouse click, select the user in the **User List** pane. The selected user field becomes highlighted in green and the events display in the right pane. The following information is provided for each event:

- Emergency mode or Heightened Risk (icon is On/Off)
- Time of the event
- First Name
- Last Name
- Service Type
- Latitude
- Longitude
- Altitude (m)
- GPS Valid



The screenshot shows the GeoPro interface with two main panes. The left pane, titled 'User List', contains a table of users with columns for ID, Full Name, and Current Device. The user 'GPSm TesterM' is selected, highlighted in green. The right pane, titled 'Event List', displays a table of events with columns for Time, Firstname, Lastname, ServiceType, Latitude, Longitude, Altitude(m), and GPS Valid. The events are sorted by time, with the most recent at the top. The selected user 'GPSm TesterM' is highlighted in the event list. The interface also includes a search bar at the top and a filter icon.

ID	Full Name	Current Device
B	GPSm TesterM	Nano
D	Lu Parente	Messenger
	Wesley Robb	Messenger
	Sean Coburn	Messenger
	Test2 GPS 8...	Messenger
	Jeff Wilson	Messenger
	Gerald Karm...	Messenger
	gpstester1 g...	Messenger
	Heart Beat	Messenger
	Bruce Marrett	Messenger
	Test4 GPS 8...	Messenger
	Test7 GPS 1...	Messenger

Time	Firstname	Lastname	ServiceType	Latitude	Longitude	Altitude(m)	GPS Valid
2011-04-09 11:40:24	GPSm	TesterM	Tracking	33.049610	-96.774026	65.695	yes
Device user Marco Marchetti sent a tracking interval 0							
2011-04-09 11:01:37	GPSm	TesterM	Tracking	32.910488	-96.773298	49.480	no
Device user Marco Marchetti sent a tracking interval 0							
2011-04-09 10:50:16	GPSm	TesterM	Tracking	32.910488	-96.773298	49.480	yes
Device user Marco Marchetti sent a tracking interval 0							
2011-04-09 10:30:22	GPSm	TesterM	Tracking	32.862225	-96.734966	165.450	yes
Device user Marco Marchetti sent a tracking interval 0							
2011-04-09 10:20:20	GPSm	TesterM	Tracking	32.848575	-96.730456	163.350	yes
Device user Marco Marchetti sent a tracking interval 0							
2011-04-09 10:10:11	GPSm	TesterM	Tracking	32.821098	-96.736696	116.860	yes
Device user Marco Marchetti sent a tracking interval 0							
2011-04-09 10:00:13	GPSm	TesterM	Tracking	32.815081	-96.721548	38.412	yes
Device user Marco Marchetti sent a tracking interval 0							

To sort the event list, click a column heading to toggle ascending or descending order. You can filter the events using the check-boxes under the Message Type drop-down menu or the search option above the User List pane (click on Filter  icon to get the search options).

NOTE: Clearing a service message type checkbox, such as 'Tracking', removes from the display only the tracking events which were not generated during an Emergency situation.

Monitoring Users using List View

The left pane (User List) of the List View functions the same way as it does on the Map View. Users may be listed by group or without grouping, or searched using the search feature. The right pane shows the list of events associated with the users displayed in the List View. Events are displayed with the most recent at the top and oldest at the bottom, but will change depending on which of the column headings is selected.

To view events associated with multiple users, use [Shift/Ctrl+click] to select the users.

Using Locating Services

Locating Services is an umbrella term used to define a group of services that involve location information.

Tracking

The Tracking service is an automated breadcrumb function that can be initiated by a GeoPro Web Application user or the user with a GeoPro compatible device. Tracking is off until a device user or a Web Application Administrator turns it on.

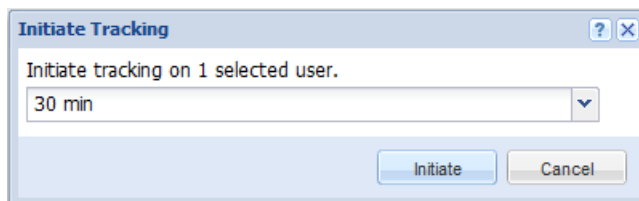
Within the web application, the default tracking interval is once every 30 minutes and can be as frequent as once a minute, or as infrequent as once a day. A GeoPro Web Application user or a device user can turn tracking on or off, and can also change the tracking interval.

NOTE: There is no tracking schedule because tracking is a simple on/off service with a reporting interval sent as part of the “on” command when tracking is first turned on.

A field user with a GeoPro compatible device can also turn tracking off, or increase or decrease the tracking interval at any time. The specific device user guide should be consulted for more detail on tracking and setting the tracking interval from the device. As tracking is an automatic device action, when tracking is turned off, or the interval is changed by a device user, a breadcrumb is sent to the GeoPro Web Application. However, there is no alerting message sent to the GeoPro Web Application Administrator or assigned escalation team.

To initiate tracking from the GeoPro Web Application:

1. On the **Map** or **Check-in** tab, select a user in the User List.
2. Click **Track user**  on the Action bar. The **Initiate Tracking** dialog box appears.



3. Select a tracking interval from the drop-down list (from 1 minute to 1 day).
4. Click **Initiate**.

The selected user displays a Tracking Activation Pending () icon in the Tracking column until the GeoPro Web Application receives the first tracking breadcrumb from the GeoPro device. Once received, the display changes to the Tracking Active () icon.

The Tracking Activation Pending () icon is visible until:

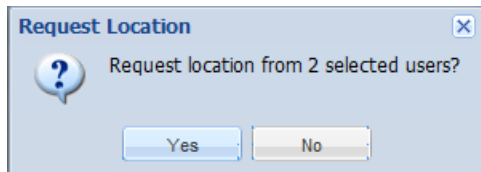
- The device sends a tracking breadcrumb
- Five days expire
- The device goes into Emergency mode

NOTE: You cannot send another Tracking Activation request to the same GeoPro device user while the Tracking Activation-pending icon is visible.

Locate

The Locate service is an on-demand function that allows a GeoPro Web Application user to locate selected users with GeoPro compatible devices. To initiate the Locate service using the GeoPro Web Application:

1. On the **Map** or **Check-in** tab, select a user in the User List.
2. Click **Locate User**  on the Action bar. The **Request Location** confirmation dialog box appears.



NOTE: You can select more than one user [Shift/Ctrl+click] to Locate.

3. Click **Yes**.

The GeoPro Web Application sends the command to all selected GeoPro compatible devices. As each device reports its location, it displays in the Map View as a breadcrumb and in the List View as an event. The Locate User Pending () icon is visible until:

- The device sends a Locate response
- Five days expire

NOTE: You cannot send another Locate request to the same GeoPro users while the Locate-pending icon is visible.

See-Me

The See-Me service enables GeoPro *Messenger* users to share their location and a message with people who do not have access to the GeoPro Web Application. The GeoPro *Messenger* user selects the See-Me option from the device menu, selects a recipient's email address, and sends the See-Me message. The GeoPro Web Application forwards the message to the email address along with a link that will display the GeoPro *Messenger* user's current location to the recipient without the recipient having to log in to the GeoPro Web Application.

For email recipients, clicking the link in the email displays a map with the device user's location marked. The message (if any) that was sent with the See-Me breadcrumb displays in the body of the email.

NOTE: The link shows the device user on a map, independent of the GeoPro Web Application.

For the GeoPro Web Application Administrator, the See-Me displays in the Map View as a breadcrumb and in the List View as an event.

Waypoints

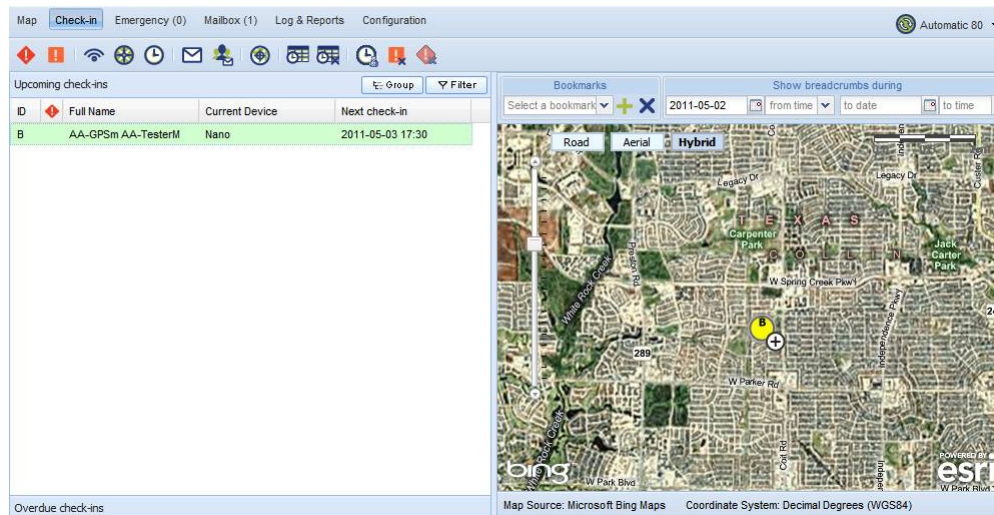
A waypoint can be created by users with a GeoPro compatible device that supports waypoint functionality. Waypoints are visible on a GeoPro Web Application window and available to device users. Waypoints can be uploaded from a GeoPro device over-the-air (OTA) or through the synchronization process using the GeoPro Sync client. For more information on the GeoPro Sync client, refer to the [GeoPro Sync Client User Guide](#).

When a device user uploads a waypoint OTA, the waypoint appears in the GeoPro Web Application Administrator's list of waypoints under the **Configuration > Waypoints** tab as 'Pending'. If the device user synchronizes the waypoints, they appear in the user's Device Manager under **Waypoints**. In the latter case, the user can edit the waypoints and select waypoints to 'Propose' for publication. Proposed waypoints are submitted to the Administrator and appear as 'Pending' on the **Waypoints** tab. The Administrator can reject, edit, or publish pending waypoints. Rejecting a waypoint sends it back to the person who created it. The Administrator can edit the name, description, and category of the waypoint and 'Publish' it, making it available to all users in the Tenant (enterprise) under the **Waypoint** drop-down menu on the map screens. For details, refer to the [Managing Waypoints](#) section.

Managing Check-ins

The GeoPro Web Application enables check-in rules to be established for GeoPro device users. Check-ins can be unscheduled (on-demand or unsolicited), scheduled at specific times (for example, 9 a.m., 5 p.m.), or scheduled on an interval basis (for example, every 3 hours). These rules are configured by the GeoPro Web Application Administrator. GeoPro device users with Check-in schedules enabled, are automatically reminded to check-in if they have missed a check-in, according to their predefined schedule.

On the **Check-in** tab, you can see the location and status of employees with scheduled check-ins on the map. The GeoPro device user list on the left is divided into an upper pane that shows the employees with upcoming check-ins, and a lower pane that shows which employees have an overdue check-in but have not caused an escalation.



An Administrator can define a Check-in schedule on a per-user basis. Each Check-in schedule has a "response window", if an employee uses their GeoPro compatible device to check-in within this allowable window, the check-in requirement is considered satisfied.

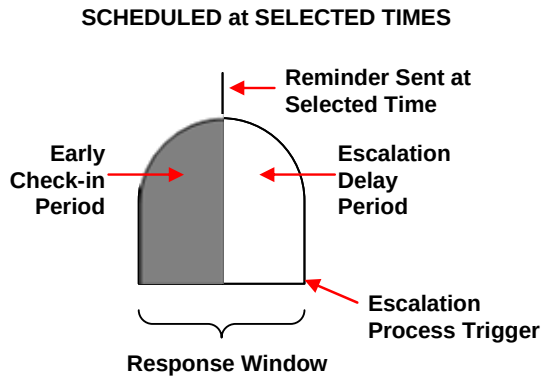


Figure 4: Time distribution model for scheduled and selected times to check-in

The GeoPro Web Application Administrator who sets up a check-in schedule defines when a GeoPro device user can check-in (for example, every 30 minutes), and how long to wait (delay) before notifying the user’s escalation response team if the user does not check-in.

As illustrated in Figure 4, the GeoPro device user can check-in early; the amount of time is defined by the GeoPro Web Application Administrator when setting up the check-in schedule. If the GeoPro device user does not check-in during the early check-in period, a reminder is sent automatically to that user. Once the reminder is sent, the GeoPro device user has to check-in during the escalation delay period. If the user fails to check-in by the time the escalation delay period expires, the escalation team is alerted and the user’s icon changes to heightened risk (■).

Scheduled Check-in

For scheduled events, the GeoPro Web Application “expects” a check-in message from a GeoPro device user either at a certain time or at predefined intervals:

- For check-ins at specific times, the GeoPro device user is expected to check-in as specified, within the response window.
- For check-in intervals, the GeoPro device user is expected to check in periodically, such as every three hours. If the user fails to check in during the interval period, a reminder is sent. If the user checks-in before the escalation delay period expires, the interval is reset from the time the user checks-in.

NOTE: When a GeoPro *Messenger* is set to ‘Out of Field’, scheduled check-ins are not expected by the GeoPro Web Application. When an Administrator selects a user with a Check-in schedule and clicks the **Disable Check-in Schedule** icon, check-ins are no longer expected for that user by the Web Application.

Unscheduled Check-in

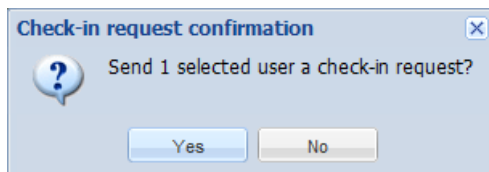
There are two types of unscheduled check-ins:

- *On-demand Check-in* request – an Administrator can select a GeoPro device user on the **Map** or **Check-in** tabs and request a check-in.
- *Unsolicited Check-in* – a GeoPro device user selects **Check-in** on the device, which then sends the check-in message OTA to the GeoPro Web Application. The GeoPro Web Application records the message as an unsolicited Check-in message and displays the check-in breadcrumb (📍) on the **Map**.

GeoPro *Messenger* users can suspend their check-in schedule for up to 8 hours (for example to sleep) without having to set field status to “out” or power off the device. If a GeoPro *Messenger* user sets “Suspend Check-in” to ‘ON’, no Check-in reminder message or On-demand Check-in message is sent to the device user for the duration of the Check-in suspension, and the GeoPro Web Application user is informed of the status and is prevented from executing an On-demand Check-in request. In this case, to see the device user’s location on the map, the GeoPro Web Application user is expected to initiate the [Locate](#) command on the device user. When the Check-in suspension period is up, the device becomes eligible to receive Check-in reminder messages and On-demand Check-in messages.

To request a user check-in:

1. On the **Map** or **Check-in** tab, select a user in the User List.
2. Click **Request On-Demand Check-in**  on the Action bar. The **Check-in request confirmation** dialog box appears.



3. Click **Yes**.

Until the on-demand check-in request is answered by the device user, the ‘On demand Check-in Pending’ () icon is visible in the Check-in column of the User List, and the GeoPro Web Application user cannot make another On-demand Check-in request. There is no escalation tree automatically invoked. The GeoPro Web Application user must invoke an escalation tree manually, if deemed necessary.

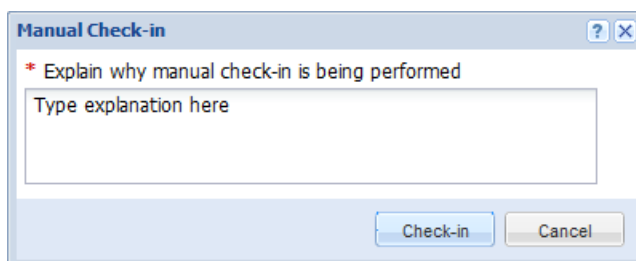
NOTE: You can select more than one user [Shift/Ctrl+click] for an On-demand Check-in.

Manual Check-in

Under some circumstances, the GeoPro device user will contact a GeoPro Web Application Administrator and, in effect, check-in by virtue of this contact. To facilitate the check-in process, the GeoPro Web Application Administrator can manually check-in on behalf of the GeoPro device user and provide a description of the reason for the manual check-in.

To manually check-in a GeoPro device user:

1. On the **Map** or **Check-in** tab, select a user in the User List.
2. Click **Manual Check-in**  on the Action bar. The **Manual Check-in** dialog box appears.



3. Type an explanation (required) for performing the manual check-in on the selected users.

4. Click **Check-in**.

Determining if a User has an Active Check-in Schedule

When a Check-in schedule is assigned, there is an icon of a Calendar with a Clock and “x” () alongside the user’s name in the **User List** panel of the Map screen to indicate that the schedule is assigned but not active. When the Check-in schedule is enabled (i.e., becomes active) the **User List** panel on the Map page contains the Check-in icon () visible alongside the user name and the user has an active schedule listed on the **Up coming Check-ins** User List panel. If the user suspends Check-in, the Suspended Check-in icon () is visible.

Managing Emergencies

An emergency situation arises when either the device user presses the Emergency button on the GeoPro device, or the GeoPro Web Application user selects a device user from the User List and clicks the  icon to declare an emergency for the selected user. Once an emergency is declared, an incident number is assigned by the GeoPro Web Application to all events and messages that occur while the emergency is ongoing. All message exchanges with the user who is in emergency mode are displayed on the ‘Recent history’ tab. Workflow notes, describing events and actions done by the GeoPro Web Application and any other party are captured on the ‘Notes’ tab and are a permanent part of the incident record.

Figure 5 illustrates how the emergency process works from the point of view of the device user and the GeoPro Web Application Administrator.

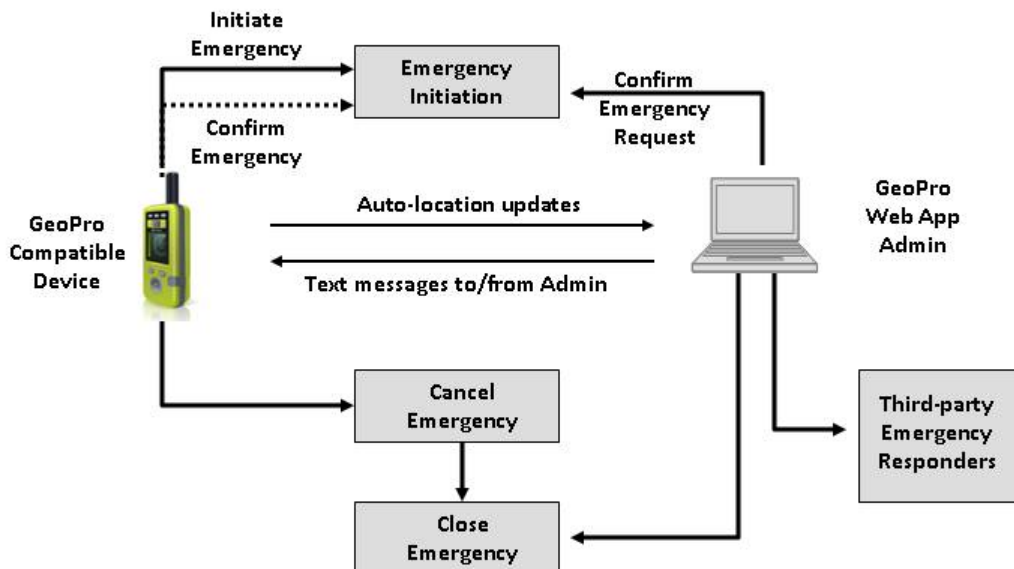


Figure 5: Emergency process high level overview

Figure 6 describes the main tasks involved in handling emergencies.

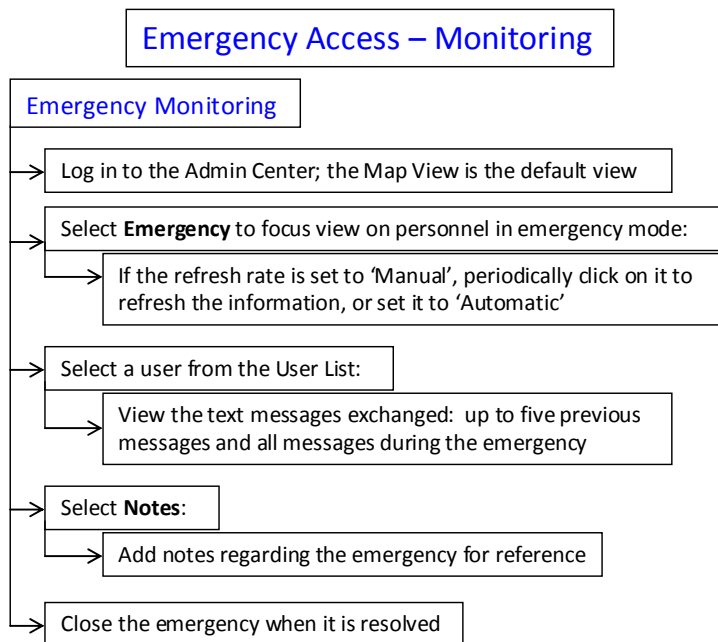
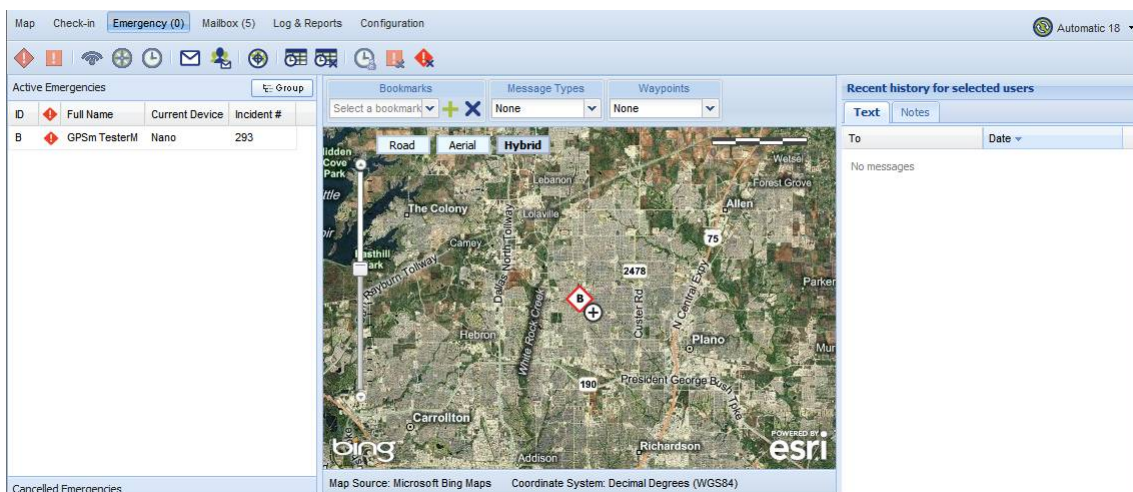


Figure 6: Emergency monitoring access workflow

The **Emergency** tab consists of these panes:

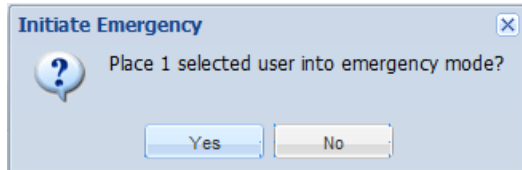
- **User List** – users in Emergency mode are listed on the **Active Emergencies** tab; cancelled Emergency users are listed on the **Cancelled Emergencies** tab
- **Map View** – users are shown using Emergency () breadcrumbs
- **Recent history for selected users** – consists of a **Text** (incident description) tab and a **Notes** (Administrator notes) tab with information about the selected user.



Declaring an Emergency

To declare an emergency from the Web Application:

1. On the **Map** tab, select a user from the User List.
2. Click **Declare Emergency**  on the Action bar. The **Initiate Emergency** dialog box appears.



3. Click **Yes**.

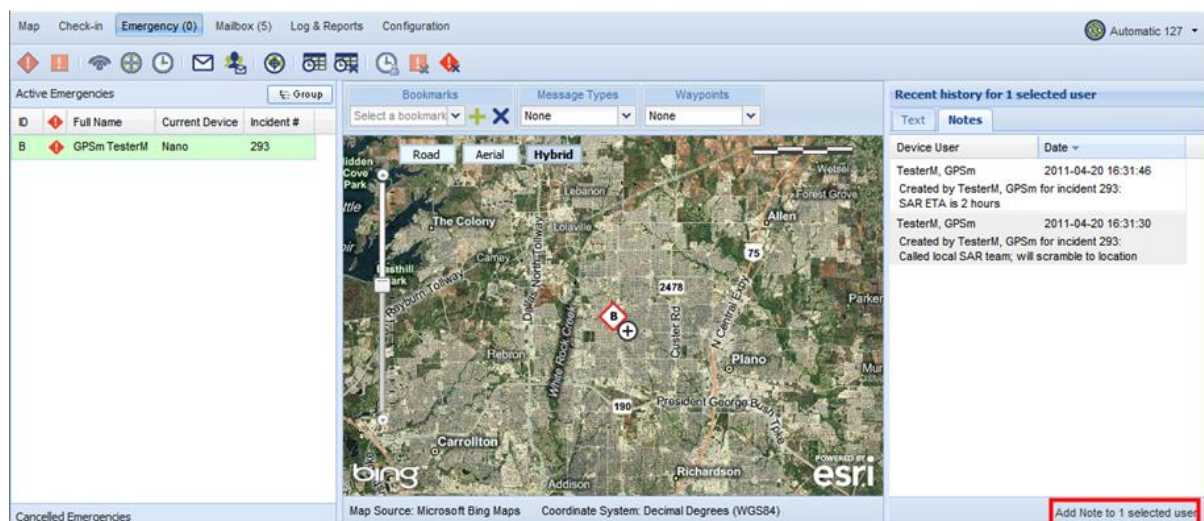
The user appears in the User List on the **Emergency** tab, and the breadcrumb icons change to Emergency (). Recent history for the user displays in the right pane with two tabs:

- **Text** – displays text messages regarding the emergency
- **Notes** – displays notes regarding the emergency

NOTE: To declare an emergency using a GeoPro compatible field device, consult the manufacturer supplied device user guide. Using the *GeoPro Messenger*, the device user would press and hold the **Emergency** button for 3 seconds.

When the device enters Emergency mode, the emergency state super-cedes any currently assigned check-in schedule for the user; the web application does not apply the check-in schedule until the user's emergency is either closed or cancelled.

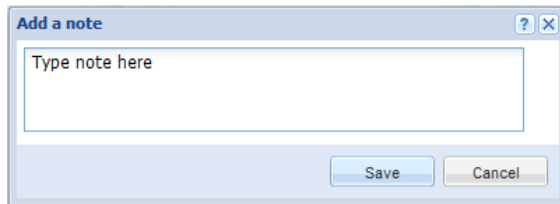
During the course of the emergency, the GeoPro Web Application Administrator can see the exchange of text messages between the device user in emergency mode and others. The administrator can also capture notes (similar to trouble tickets), on the **Notes** tab, to document activities and progress. The **Notes** tab is composed of two elements: the list of notes, with the most recent note at the top, and an **Add Note** button (see highlighted are in the figure below).



Notes are intended to provide context for actions that the GeoPro Web Application Administrator has taken, such as calling a Search and Rescue organization, or calling the family of the person who is in emergency. Notes become a permanent part of the audit record associated with the incident.

To add a note to an existing emergency:

1. On the **Notes** tab, click **Add Note**. The **Add a note** dialog box appears.



2. Type the note in the text field and then click **Save**. The note is added to the top of the Notes list.

Terminating a Declared Emergency

To terminate a declared emergency using a GeoPro compatible device, the user selects **Cancel Emergency** on the device. For detailed instructions on how to cancel an emergency, check the manufacturer-supplied user manual.

From the GeoPro Web Application, an Administrator must 'Close' an emergency incident, recording the details of the resolution, before the emergency is deemed resolved. Both active and cancelled emergencies must be closed in order for them to be removed from the emergency map page (see [Closing an Emergency](#)).

Handling an Emergency

When an emergency is declared, the GeoPro Web Application activates the Emergency Tree (sends emails, SMS messages, and creates an emergency breadcrumb on the map displays) noting that this is an "Unconfirmed Emergency". When an emergency is declared using a GeoPro compatible device, the GeoPro Web Application sends an acknowledgement to the device requesting the user to confirm the Emergency.

- If the emergency is confirmed by the device user, the GeoPro Web Application informs the Emergency Tree recipients that the emergency is "confirmed".
- If the emergency is cancelled by the device user, the GeoPro Web Application informs the Emergency Tree that the emergency is cancelled.

If an authorized user of the GeoPro Web Application declares an emergency on behalf of an employee with a GeoPro compatible field device, when the device receives the command to enter Emergency mode it alerts the device user; however it does not require that the device user confirm the emergency. The device user can leave the device in a declared emergency state or they can choose to cancel the emergency state if it was unwarranted.

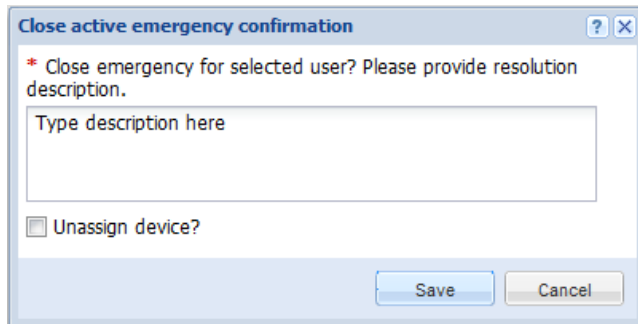
The GeoPro Web Application allows an exchange of messages (for example, from the web application to the device) and records all messages, message direction, and time-date stamps. When an emergency is terminated, the GeoPro Web Application informs the Emergency Tree that the emergency is over (either cancelled or closed), and requires the GeoPro Web Application user to Close the emergency by writing a resolution description (see [Closing an Emergency](#)).

Closing an Emergency

When an emergency is resolved, the Emergency Tree must be updated and records must be kept. This requires logging all events and messages between all parties involved and allowing an Administrator to provide a resolution description.

To close an emergency:

1. On the **Emergency** tab, select a user in Emergency Mode (🔴) from the User List.
2. Click **Close Emergency** 🚫. The **Close active emergency confirmation** dialog box appears.



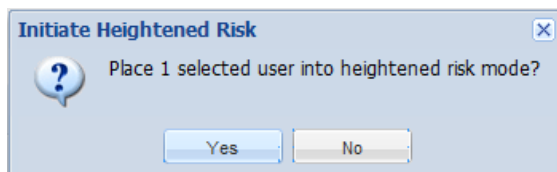
3. Type a resolution description in the text field. You can also 'unassign' the device by selecting the checkbox, to make it available to other users.
4. Click **Save**.

The emergency is closed with a resolution description and the response team is notified. The user is removed from the User List on the **Emergency** tab to the **Map** or **List View** tabs, and subsequent breadcrumb icons return to normal (○) in Map view.

Declaring a Heightened Risk

To declare a heightened risk state:

1. On the **Map** tab, select a user from the User List.
2. Click **Declare Heightened Risk** 🚨 on the Action bar. The **Initiate Heightened Risk** dialog box appears.

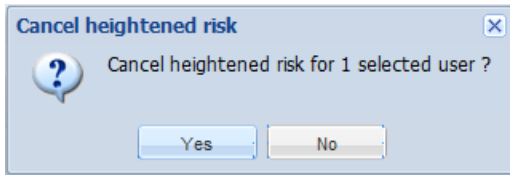


3. Click **Yes**. The user appears with a Heightened Risk (🚨) icon in the User List and the breadcrumb icons change to Heightened Risk (🚨).

Cancelling a Heightened Risk

To cancel a heightened risk state:

1. On the **Map** tab, select a user in Heightened Risk state (🚨) from the User List.
2. Click **Close Heightened Risk** 🚫. The **Cancel heightened risk** dialog box appears.



3. Click **Yes**. The heightened risk state is cancelled and the breadcrumb icons return to normal (○) in Map view.

Using Text Messaging

Field users with a GeoPro compatible device can exchange free-form or predefined text messages with an email address, SMS address, or other GeoPro devices. Users of the GeoPro Web Application can also send free-form text messages to users with GeoPro compatible devices.

In the GeoPro Web Application, use the **Mailbox** tab to view, send and receive messages. Messages available on the **Mailbox** tabs (Inbox/Sent) are those sent to or received from a GeoPro compatible device.

A message can be forwarded, replied to, or deleted. Messages can be viewed directly in the **Message** column, or by clicking the **View** button.

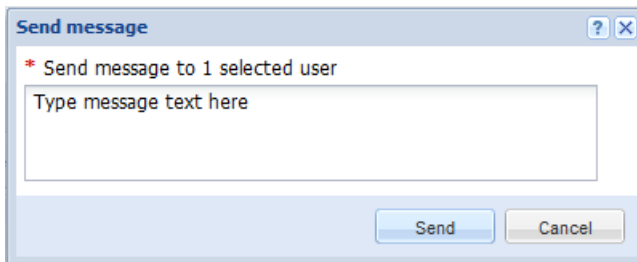
Use the date range to select the list of messages to be viewed. A different date range can be used for the Inbox and Sent box at the same time.

Within the web application, the messaging features can only be used to communicate with users that have a GeoPro compatible device assigned to them. Messages cannot be sent to people who do not have a compatible device assigned.

Messaging a User

To send a quick message to a field user with a GeoPro compatible device:

1. Select a user from the User List and click **Message User** . The **Send message** dialog box appears.



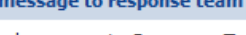
2. Type your message in the text field.

NOTE: The maximum message length is 160 characters, including spaces and punctuation. Although it is possible to enter more than 160 characters in the text field, the **Send** button becomes inactive once the message is greater than 160 characters.

3. Click **Send**. The message appears on the **Sent** tab in your **Mailbox**.

Messaging a User Response Team

To send a quick message to a response team regarding specific users:



Send message to response team ? X

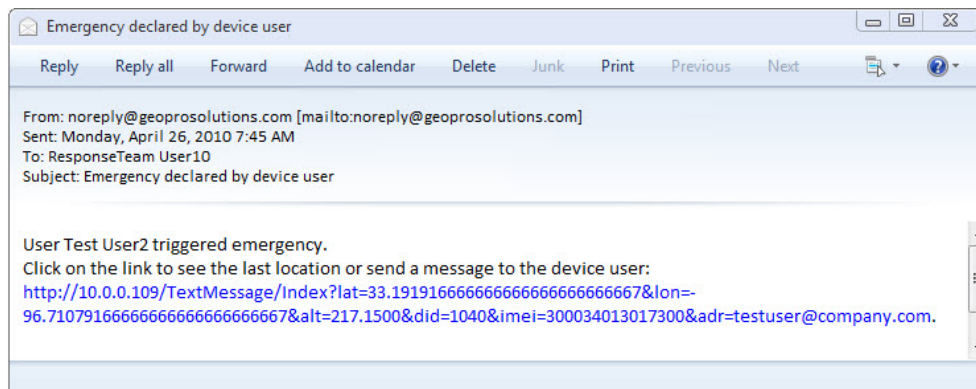
* Send message to Response Team of 3 selected users

Type message text here

Send Cancel

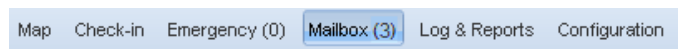
2. Type your message in the text field.
3. Click **Send**. The message is delivered to the relevant response team(s).

The following is an example of a declared emergency message.

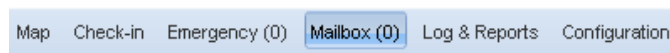


Using the Mailbox

The **Mailbox** tab on the **Main** tab bar appears with the number of new text messages shown in parentheses.



When you click the **Mailbox** tab and open the mailbox, the messages are considered read, so the number in parentheses changes to zero (0).



The Mailbox consists of two tabs: **Inbox** and **Sent**.

Map

Check-in

Emergency (0)

Mailbox (0)

Log & Reports

Configuration

Automatic 43

Inbox

Sent

Show messages during

from date 3 from time to date 3 to time

Compose

Reply

Forward

View

Delete

From	Message	Received
Lu Parente	B21,930 Test Message	2010-04-08 12:57:35
GPsm TesterM	Msg to MM's device from MM at portal	2010-04-08 13:00:45
Lu Parente [GeoPro]	OK	2010-04-09 11:02:04
Lu Parente [GeoPro]	AAAAAA	2010-04-09 14:10:34
Unassigned Device	AAAAAA	2010-04-09 14:15:56
Lu Parente [GeoPro]	QWERTY	2010-04-12 14:40:03
GPsm TesterM	how is the device operating? Seems like it is working. Shall I move it ove...	2010-04-13 17:03:16
GPsm TesterM [GeoPro]	Yespleasedo	2010-04-13 19:45:42
GPsm TesterM [GeoPro]	U should c what i hfad 2 do	2010-04-13 19:56:32
GPsm TesterM	So I'm replying to a message to me from Me -- that means that "you" are...	2010-04-14 08:00:56
GPsm TesterM	I look forward to the rundown on what you had to do. Will call Wed morn...	2010-04-14 08:01:40
GPsm TesterM [GeoPro]	it is i	2010-04-14 09:23:28

The Inbox contains messages from GeoPro device users to the Admin. The Sent box contains messages from the Admin to users with GeoPro compatible devices.

Working with the Inbox

On the **Inbox** tab, select the “from” and “to” dates using the calendar  to display your messages for a specific period. You can **Compose**, **Reply**, **Forward**, **View**, and **Delete** messages.

Sending a Text Message

To compose and send a text message:

1. Click **Compose** . The **Send new message** dialog box appears.

Send new message

*Text:

Type message text here...

*To:

297 Available contacts

Name

Address

Tester1 Tester1 [GeoPro]

2tester1@user.pinpoint

Tester10 Tester10 [GeoPro]

2tester10@user.pinpoint

Tester100 Tester100 [GeoPro]

2tester100@user.pinpoint

Tester102 Tester102 [GeoPro]

2tester102@user.pinpoint

Tester103 Tester103 [GeoPro]

2tester103@user.pinpoint

Tester104 Tester104 [GeoPro]

2tester104@user.pinpoint

1 Selected contact

Name

Address

Tester101 Tester101 [GeoPro]

2tester101@user.pinpoint

Send

Cancel

2. Drag-and-drop a contact from the **Available contacts** area to the **Selected contact** area. To select multiple contacts, use the [Ctrl] or [Shift] keys.

NOTE: To remove a selected contact, drag-and-drop the contact from the **Selected contact** area to the **Available contacts** area.

3. Type your message in the **Text** field.
4. Click **Send**.

Replying to a Message

To reply to a message in your Inbox:

1. Select a message and click **Reply** . The **Reply to message** dialog box appears.



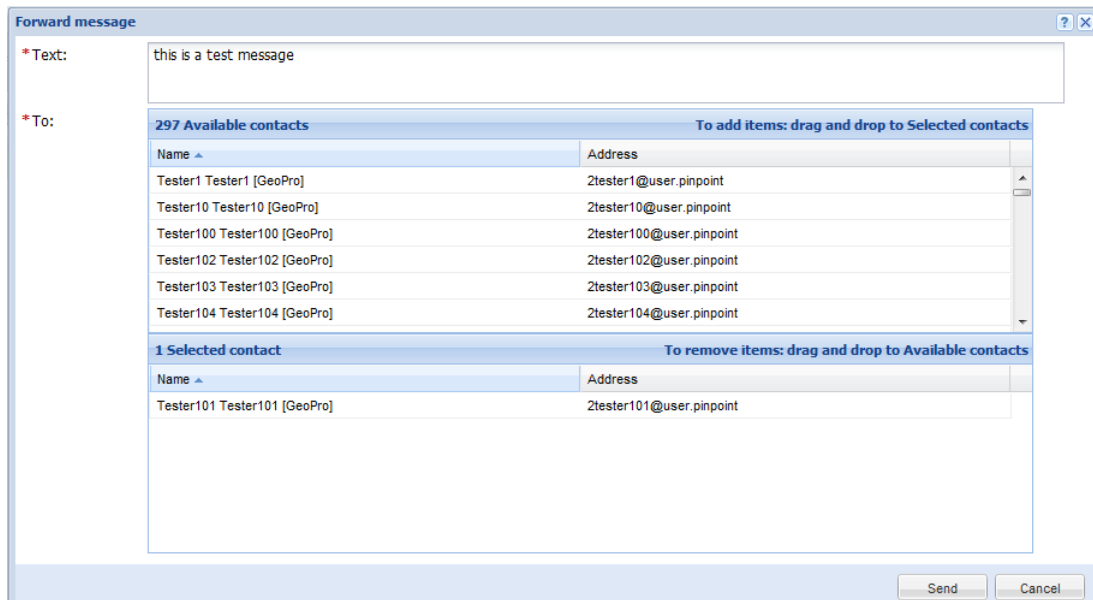
The **Reply to message** dialog box has a title bar with a question mark and close button. It contains a text field labeled ***Text:** with the placeholder text "Type reply here". Below the text field is a **To:** field containing the text "Tester1 Tester1". At the bottom right are **Send** and **Cancel** buttons.

2. Type your reply message.
3. Click **Send**.

Forwarding a Message

To forward a message in your Inbox:

1. Select the message you want to forward and click **Forward** . The **Forward message** dialog box appears with your message in the **Text** field.



The **Forward message** dialog box has a title bar with a question mark and close button. It contains a text field labeled ***Text:** with the text "this is a test message". Below the text field is a ***To:** section with two tables. The first table is titled **297 Available contacts** and has a subtitle **To add items: drag and drop to Selected contacts**. The second table is titled **1 Selected contact** and has a subtitle **To remove items: drag and drop to Available contacts**. Both tables have columns for **Name** and **Address**. At the bottom right are **Send** and **Cancel** buttons.

297 Available contacts	
Name	Address
Tester1 Tester1 [GeoPro]	2tester1@user.pinpoint
Tester10 Tester10 [GeoPro]	2tester10@user.pinpoint
Tester100 Tester100 [GeoPro]	2tester100@user.pinpoint
Tester102 Tester102 [GeoPro]	2tester102@user.pinpoint
Tester103 Tester103 [GeoPro]	2tester103@user.pinpoint
Tester104 Tester104 [GeoPro]	2tester104@user.pinpoint

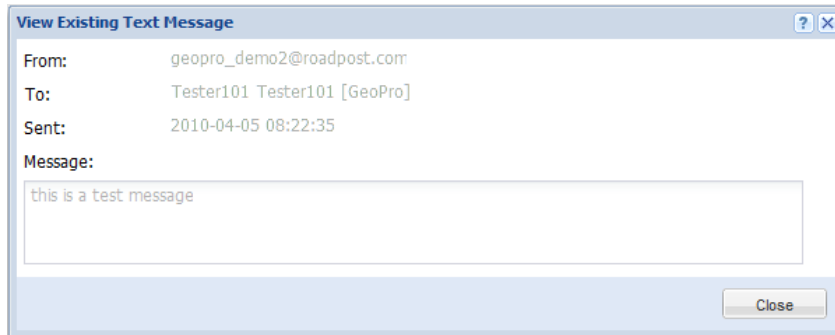
1 Selected contact	
Name	Address
Tester101 Tester101 [GeoPro]	2tester101@user.pinpoint

2. Drag-and-drop a contact from the **Available contacts** area to the **Selected contact** area. To select multiple contacts, use the [Ctrl] or [Shift] keys.
3. Click **Send**.

Viewing a Message

To view a message in your Inbox:

1. Select the message you want to view and click **View** . The **View Existing Text Message** dialog box displays the selected message, indicating the date and time when the message was sent. You cannot change the contents of the message in this dialog box.



2. Click **Close** to exit.

Deleting a Message

To delete a message in your Inbox:

1. Select the message you want to delete and click **Delete** .
2. Click **OK** to confirm.

Working with Sent Messages

After composing and sending a message from your Inbox, the message appears on the **Sent** tab. On the **Sent** tab, select the “from” and “to” dates using the calendar  to display messages you sent during that date range. You can **Send**, **Forward**, **View**, and **Delete** messages.

To send a free-form text message:

1. Click **Compose** . The **Send new message** dialog box appears.
2. Drag-and-drop a contact from the **Available contacts** area to the **Selected contact** area. To select multiple contacts, use the [Ctrl] or [Shift] keys.

NOTE: To remove a selected contact, drag-and-drop the contact from the **Selected contact** area to the **Available contacts** area.

3. Type your message in the **Text** field.
4. Click **Send**.

To forward a message in your Sent box:

1. Select the message you want to forward and click **Forward** . The **Forward message** dialog box appears with your message in the **Text** field.
2. Drag-and-drop a contact from the **Available contacts** area to the **Selected contact** area. To select multiple contacts, use the [Ctrl] or [Shift] keys.

3. Click **Send**.

To view a message in your Sent box:

1. Select the message you want to view and click **View** . The **View Existing Text Message** dialog box displays the selected message, indicating the date and time when the message was sent.
2. Click **Close** to exit.

To delete a message in your Sent box:

1. Select the message you want to delete and click **Delete** .
2. Click **OK** to confirm.

Viewing Logs and Reports

The **Logs & Reports** tab provides at-a-glance information about the system and allows more in-depth auditing of Emergency Incidents. You can select a date range to obtain a list of all events occurring within that period to view on screen or export to a Comma Separated Value (CSV) file.

Figure 7 describes the main tasks in the monitoring process.

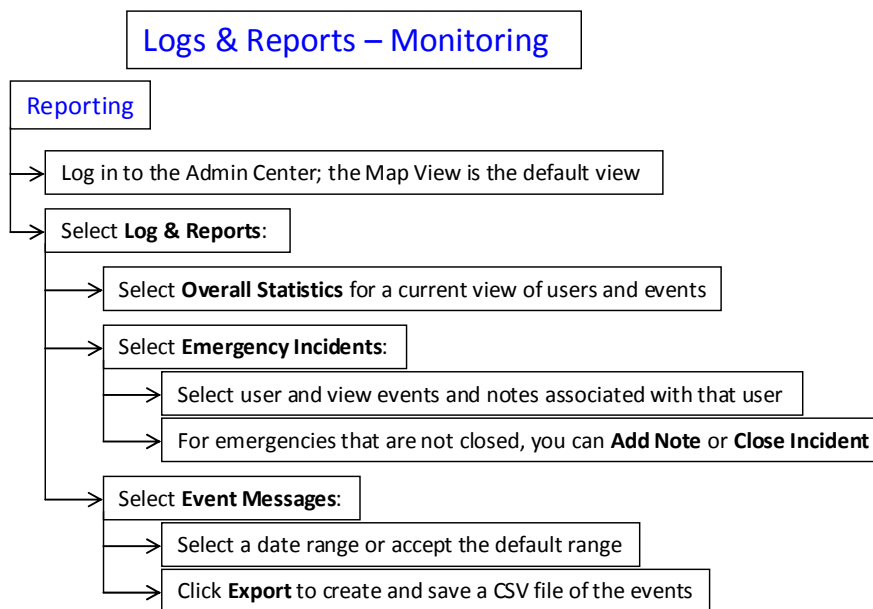


Figure 7: Report monitoring workflow

The **Logs & Reports** tab contains these three (3) tabs:

- Overall Stats
- Emergency Incidents
- Event Messages

Overall Statistics

Map Check-in Emergency (0) Mailbox (0) **Log & Reports** Configuration Automatic 68 ▾

Overall Stats Emergency Incidents Event Messages

Emergencies

Active open emergencies: 1

Cancelled emergencies: 15

Tracking

Users with tracking on: 6

Check-ins

Current missed check-ins: 0

Current escalated check-ins: 1

Current suspended check-ins: 0

Waypoints

Current pending waypoints: 19

Events

Current pending events: 0

The **Overall Stats** tab provides a snapshot of the current status of users and events. The snapshot is taken when the tab is first opened and refreshed according to the auto or manual refresh setting. This tab provides a summary of statistical information on these services:

- Emergencies – number of open (active), cancelled, emergencies
- Check-ins – number of current missed, escalated, and suspended check-ins
- Tracking – number of GeoPro device users with tracking set to 'ON'
- Waypoints – number of waypoints in the pending state
- Events – number of events in the pending state

Emergency Incidents

Map Check-in Emergency (0) Mailbox (0) **Log & Reports** Configuration Automatic 26 ▾

Overall Stats **Emergency Incidents** Event Messages

Viewing 86 emergency incidents Add Note Close Incident

Username	Incident #	Status	Time of incident ▾
TesterM, GPSm	294	Unconfirmed - device initiated	2011-04-20 16:41:30
TesterM, GPSm	293	Closed	2011-04-20 16:19:46
TesterM, GPSm	291	Closed	2011-04-14 13:41:20
Parente, Lu	290	Cancelled	2011-04-11 11:46:51
Parente, Lu	287	Cancelled	2011-03-16 15:12:17
Shawn, Morris	274	Closed	2010-07-08 09:05:04
GPS 8-LP, Test1	273	Closed	2010-06-29 11:02:23
GPS 8-LP, Test1	272	Closed	2010-06-17 13:23:07
Tester10, Tester10	271	Closed	2010-06-16 10:49:54
Tester10, Tester10	270	Closed	2010-06-16 10:48:45

Events for emergency incident 293

Event	Date ▾
GeoPro user GPSm Test...	2011-04-20 16:38:22
Server requested devic...	2011-04-20 16:24:30
Received emergency lo...	2011-04-20 16:24:18
Server requested devic...	2011-04-20 16:24:03
Received emergency lo...	2011-04-20 16:23:49
Server requested devic...	2011-04-20 16:23:29
Received emergency lo...	2011-04-20 16:23:13
Server requested devic...	2011-04-20 16:22:57
Received emergency lo...	2011-04-20 16:22:42
Device user GPSm Test...	2011-04-20 16:21:59
GeoPro user GPSm Test...	2011-04-20 16:19:46

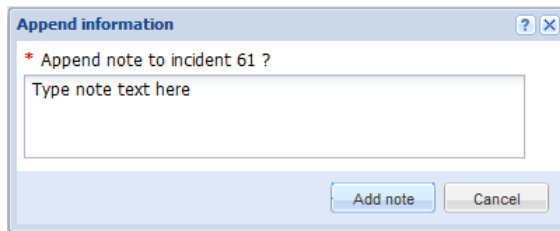
Other details for emergency incident 293

First Name	Last Name	Incident Notes	Date ▾
GPSm	TesterM	GPSM user was rescued	2011-04-20 16:38:22
GPSm	TesterM	SAR ETA is 2 hours	2011-04-20 16:31:46
GPSm	TesterM	Called local SAR team; will scramble to location	2011-04-20 16:31:30

The **Emergency Incidents** tab lists all emergency incidents from the most recent to oldest, including their number, status and time. It allows you to add notes to incidents and close open incidents. It also shows all events, in the right pane, related to the selected emergency incident. When you select an incident, the bottom pane shows any notes associated with it.

To add a note to an emergency incident:

1. Select an incident and click **Add Note** . The **Append information** dialog box appears.



Append information

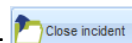
* Append note to incident 61 ?

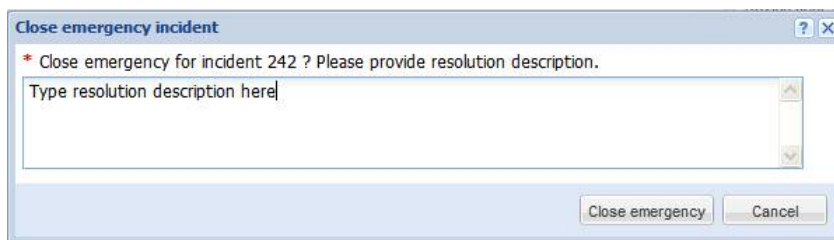
Type note text here

Add note Cancel

2. Type the note in the text field and then click **Add note**.

To close an emergency incident:

1. Select an incident and click **Close incident** . The **Close emergency incident** dialog box appears.
2. Type a resolution description in the text field..



Close emergency incident

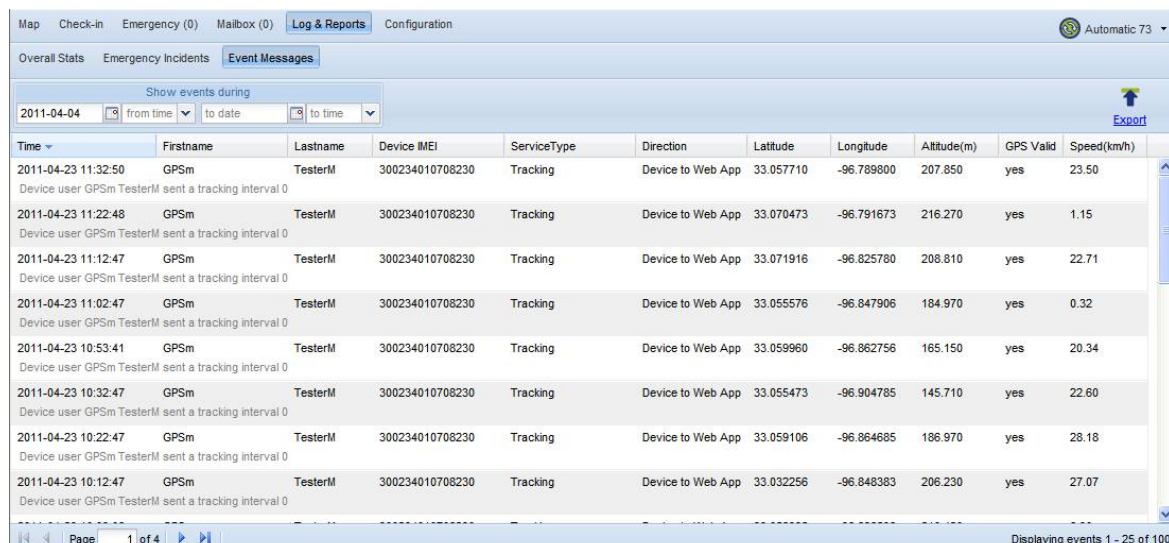
* Close emergency for incident 242 ? Please provide resolution description.

Type resolution description here

Close emergency Cancel

3. Click **Close emergency**.
4. The emergency is closed with a resolution description and the response team is notified.

Event Messages



Map Check-in Emergency (0) Mailbox (0) Log & Reports Configuration Automatic 73

Overall Stats Emergency Incidents **Event Messages**

Show events during 2011-04-23 from time to date to time

Export

Time	Firstname	Lastname	Device IMEI	ServiceType	Direction	Latitude	Longitude	Altitude(m)	GPS Valid	Speed(km/h)
2011-04-23 11:32:50	GPsm	TesterM	300234010708230	Tracking	Device to Web App	33.057710	-96.789800	207.850	yes	23.50
Device user GPsm TesterM sent a tracking interval 0										
2011-04-23 11:22:48	GPsm	TesterM	300234010708230	Tracking	Device to Web App	33.070473	-96.791673	216.270	yes	1.15
Device user GPsm TesterM sent a tracking interval 0										
2011-04-23 11:12:47	GPsm	TesterM	300234010708230	Tracking	Device to Web App	33.071916	-96.825780	208.810	yes	22.71
Device user GPsm TesterM sent a tracking interval 0										
2011-04-23 11:02:47	GPsm	TesterM	300234010708230	Tracking	Device to Web App	33.055576	-96.847906	184.970	yes	0.32
Device user GPsm TesterM sent a tracking interval 0										
2011-04-23 10:53:41	GPsm	TesterM	300234010708230	Tracking	Device to Web App	33.059960	-96.862756	165.150	yes	20.34
Device user GPsm TesterM sent a tracking interval 0										
2011-04-23 10:32:47	GPsm	TesterM	300234010708230	Tracking	Device to Web App	33.055473	-96.904785	145.710	yes	22.60
Device user GPsm TesterM sent a tracking interval 0										
2011-04-23 10:22:47	GPsm	TesterM	300234010708230	Tracking	Device to Web App	33.059106	-96.864685	186.970	yes	28.18
Device user GPsm TesterM sent a tracking interval 0										
2011-04-23 10:12:47	GPsm	TesterM	300234010708230	Tracking	Device to Web App	33.032256	-96.848383	206.230	yes	27.07
Device user GPsm TesterM sent a tracking interval 0										

Page 1 of 4 Displaying events 1 - 25 of 100

The **Event Messages** tab lists all event types from the most recent to oldest, for all active users with a GeoPro compatible device, and allows the GeoPro Web Application Administrator to select a date range and export the resulting data to a Comma Separated Value (CSV) file.

The following information is provided for each event in the CSV file:

- Time – the time the event occurred
- First Name – GeoPro *Messenger* user's first name
- Last Name – GeoPro *Messenger* user's last name
- Device IMEI – GeoPro *Messenger* unique identification number
- Service Type – the service that initiated the event
- Direction – indicates how the event was initiated (from the Web App to the device or from the device to the Web App)
- Incident # – applicable only to emergency-related events
- Latitude
- Longitude
- Altitude (m)
- Speed (km/h)
- GPS Valid – indicates whether the GPS reading was calculated to be reliable (valid)
- Information – type of message, message text

To export event messages to a CSV file:

1. On the **Logs & Reports > Event Messages** tab, click Export .
2. Select whether to **Open** or **Save** the report file (.csv).
3. Click **OK**.
 - If you choose to **Save** the file, you are prompted for a folder, and the default filename is *GeoPro-EventsReport.csv*.
 - If you choose to **Open** the file, it opens using MS Excel by default, and displays a complete list of events (the figure, below, has bold and yellow highlighting for presentation purposes only; the CSV file contains no bold or highlighted text).

Time	First Name	Last Name	IMEI	Service Type	Direction	Incident #	Latitude	Longitude	Altitude(m)	Speed(km/h)	GPS Valid	Information
4/17/2011 16:29	Remote-1	Tester	300034013917960	Tracking	Web App to Device		36.17944	-113.117043	513.9	15.01	Yes	GeoPro user Remote-1 Tester sent tracking interval of 30 to device user Remote-1 Tester
4/14/2011 15:14	Remote-1	Tester	300034013917960	Tracking	Device to Web App		36.197233	-113.083536	512.8	0.5	Yes	Device user Remote-1 Tester sent a tracking interval
4/14/2011 14:43	Remote-1	Tester	300034013917960	Tracking	Device to Web App		36.19729	-113.08354	514	0.14	Yes	Device user Remote-1 Tester sent a tracking interval
4/14/2011 14:14	Remote-1	Tester	300034013917960	Tracking	Device to Web App		36.237851	-117.957613	568.4	10.08	Yes	Device user Remote-1 Tester sent a tracking interval
4/14/2011 11:14	Remote-1	Tester	300034013917960	Tracking	Device to Web App		36.256106	-117.925546	551.5	9.1	No	Device user Remote-1 Tester sent a tracking interval
4/14/2011 8:43	Remote-1	Tester	300034013917960	Tracking	Device to Web App		36.257371	-117.893748	560.4	2.48	Yes	Device user Remote-1 Tester sent a tracking interval
4/14/2011 8:39	Remote-1	Tester	300034013917960	See-me	Device to Web App		36.257181	-117.893311	608.3	0.46	Yes	Device user Remote-1 Tester sent see-me message: to 6
4/14/2011 8:14	Remote-1	Tester	300034013917960	Tracking	Device to Web App		36.25714	-117.893391	611.1	0.25	Yes	Device user Remote-1 Tester sent a tracking interval
4/14/2011 7:45	Remote-1	Tester	300034013917960	Tracking	Device to Web App		36.265386	-117.886086	2346.5	0	No	Device user Remote-1 Tester sent a tracking interval

Column "A" contains the time-date stamp; to view it, expand the column. Column "D" contains the IMEI of the device. To view the IMEI information, select Column D and format it as a "number" with no digits following the decimal place. Once the column expands, the full IMEI can be seen.

GeoPro Web Application Administration

The GeoPro system, which includes the GeoPro Web Application, users, and GeoPro devices, is administered using the Admin Center. The **Configuration** tab contains ten (10) additional tabs specifically for administering the GeoPro Web Application. These tasks are handled by the GeoPro Web Application Administrators.

Figure 8 outlines the tasks that an Administrator would normally do when first accessing the GeoPro Web Application Admin Center.

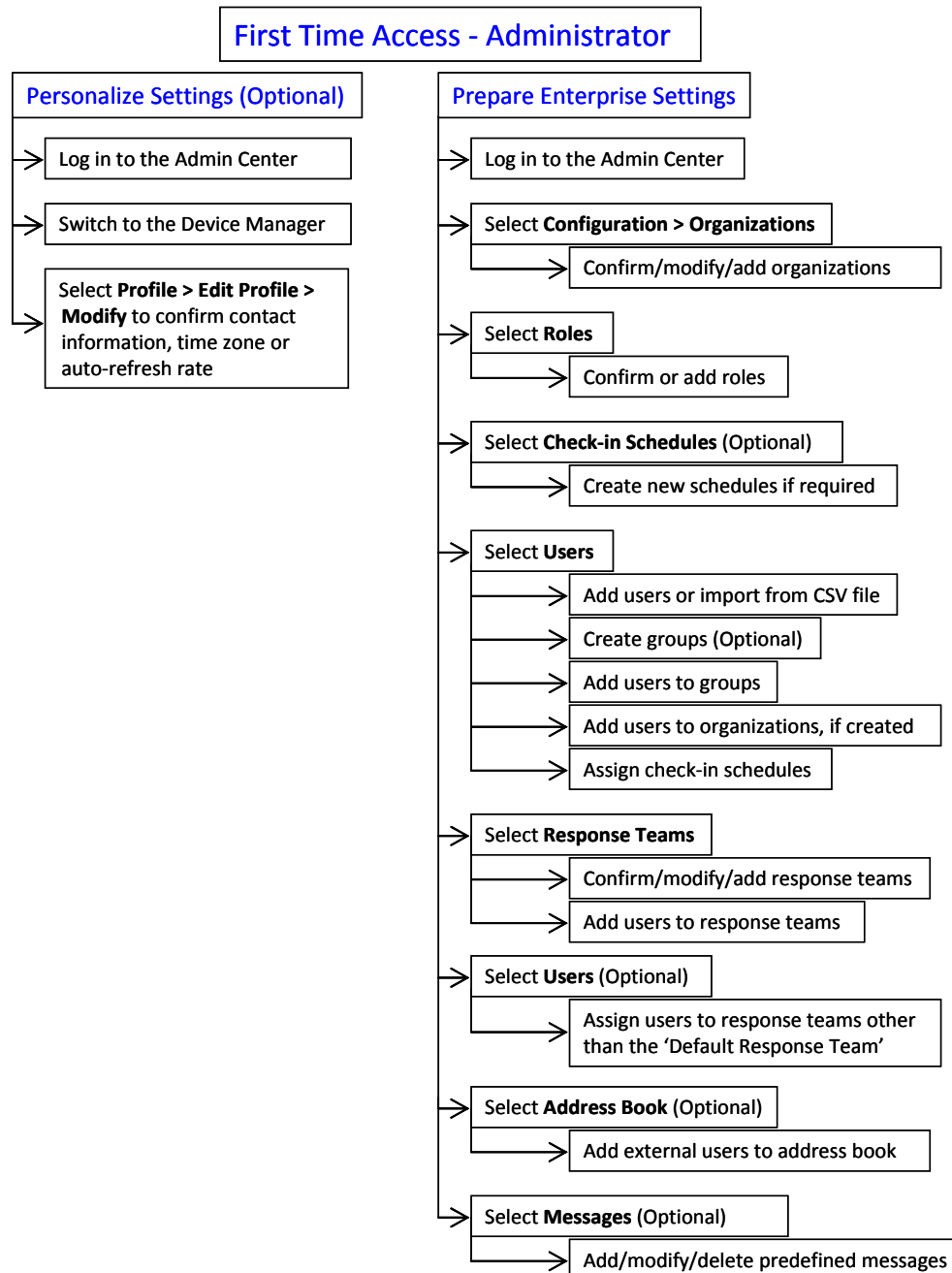


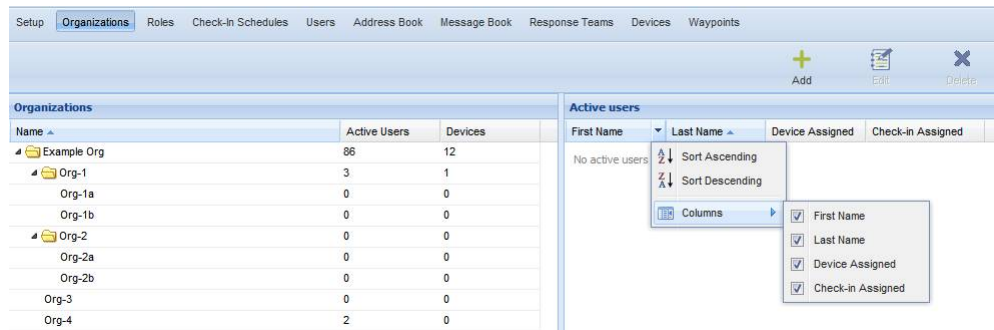
Figure 8: Main administrative tasks workflow

Customizing Tabs

The Configuration tabs, except for Setup, consist of a predefined number of columns. In addition to sorting the order of items in the list, you can specify which columns to include in each pane by using the drop-downs on the column headers.

To customize the column list:

1. Position the mouse pointer over a column header. A drop-down arrow (▼) displays on the right side.

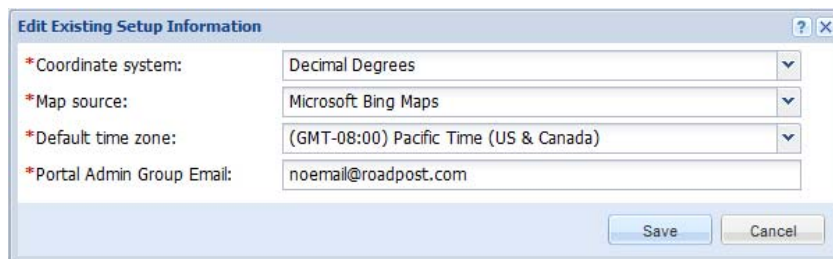


2. Click the arrow to activate the drop-down, and then select **Columns**.
3. Clear the checkboxes for columns that you do not want to show. Columns currently displayed are selected by default.

Configuration Setup

To edit the existing GeoPro Web Application configuration:

1. Click the **Configuration** tab and then the **Setup** tab. The **Edit Existing Setup Information** dialog box appears.



2. Update the setup information as needed. There are three coordinate systems to choose from: 'Decimal Degrees (WGS84)', USNG (NADE84), and UTM. For **Map source**, there are eight map sources from which to choose: Microsoft Bing maps, Operational Navigational Charts, USA Topo maps, World Imagery Map, World Shaded Relief, World Street map, World Terrain Base, and World Topo map. The additional maps and coordinate systems are available via the respective drop-down menu selector.
3. Click **Save**.

Managing Organizations

Organizations are a useful way to limit the span of responsibility for Administrators, as well as categorize users according to meaningful enterprise or agency lines. Organizations can be hierarchical

or flat. Administrative Roles can be defined to support a broad range of capabilities, from allowing visibility of all users across all Organizations to restricting visibility to the Administrator's own Organization.

Use the permissions associated with Administrative Roles and Organizations to fine-tune how Administrators can interact with GeoPro *Messenger* users and devices within the overall Tenant context.

The **Organizations** tab allows you to manage your organization structure, view active users and their devices and check-in assignments.

Setup Organizations Roles Check-In Schedules Users Address Book Message Book Response Teams Devices Waypoints			
		Add	Edit Delete
Organizations		Active users	
Name ▲	Active Users	Devices	
Example Org	86	12	
Org-1	3	1	
Org-1a	0	0	
Org-1b	0	0	
Org-2	0	0	
Org-2a	0	0	
Org-2b	0	0	
Org-3	0	0	
Org-4	2	0	

First Name	Last Name ▲	Device Assigned	Check-in Assigned
No active users			

Adding a New Organization

To add a new organization to your organization tree:

- On the **Configuration > Organizations** tab, click [Add](#) . The **Add New Organization** dialog box appears.

Add New organization

* Organization Name: Org4

* Parent Organization: Main Tenant Org

Active Users:

300 Available active users

To add items: drag and drop to Selected active users

First Name	Last Name ▲	Organization
Demo	2	Main Tenant Org
Tester3	Ahmad	Main Tenant Org
Tester1	Tester1	Main Tenant Org
Tester100	Tester100	Main Tenant Org
Tester101	Tester101	Main Tenant Org

1 Selected active user

First Name	Last Name ▲	Organization
Tester10	Tester10	Org4

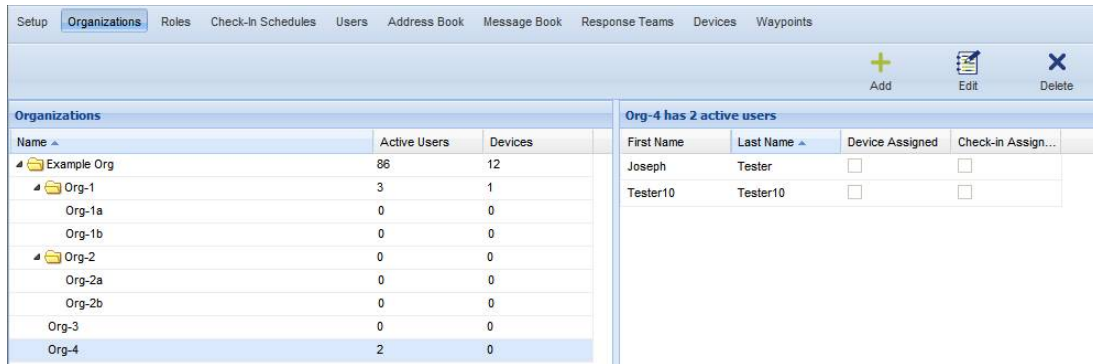
Save

Cancel

- Enter an **Organization Name**, and select a **Parent Organization** from the drop-down.

3. Drag-and-drop a user from the **Available active users** area to the **Selected active users** area. To select multiple users, use the [Ctrl] or [Shift] keys.
4. Click **Save**.

The created organization is added to the **Organizations** tree in the left pane, displaying the number of active users and devices. The selected organization's active users are listed in the right pane.



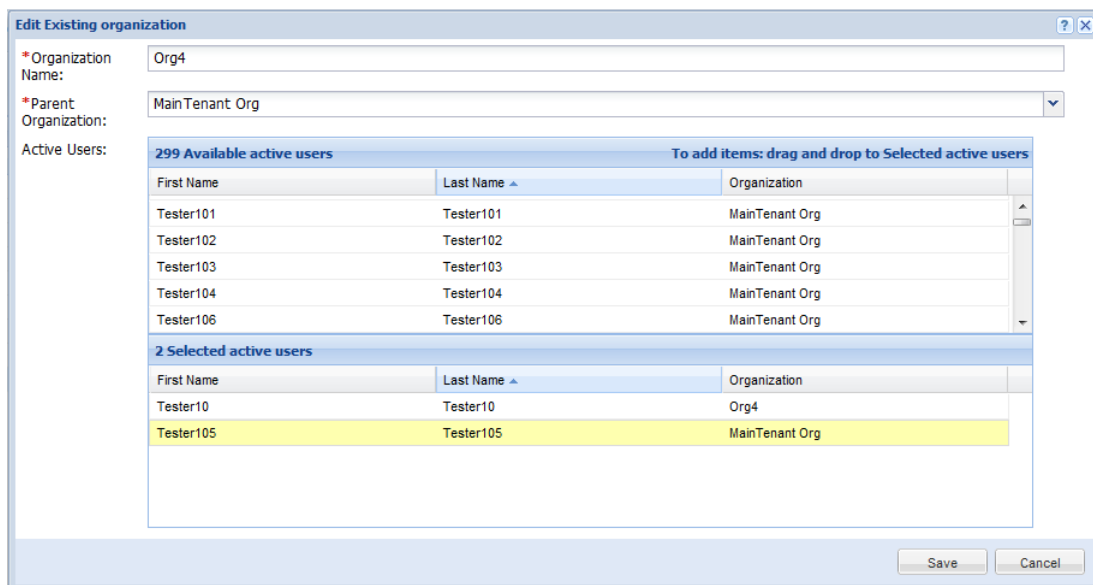
Organizations			Org-4 has 2 active users			
Name	Active Users	Devices	First Name	Last Name	Device Assigned	Check-in Assign...
Example Org	86	12	Joseph	Tester	☐	☐
Org-1	3	1	Tester10	Tester10	☐	☐
Org-1a	0	0				
Org-1b	0	0				
Org-2	0	0				
Org-2a	0	0				
Org-2b	0	0				
Org-3	0	0				
Org-4	2	0				

CAUTION: If you move yourself into a lower organization, for example, from Org-1 to Org-1a, and your Role permissions do not let you see 'All Organizations', you will no longer be able to access the same organizations, users, and devices as you did before, and you will not be able to move yourself back up to the previous level.

Editing Organization Information

To edit existing organization information:

1. On the **Organizations** tab, select an organization and then click **Edit** . The **Edit Existing Organization** dialog box appears.



Edit Existing organization

* Organization Name: Org4

* Parent Organization: MainTenant Org

Active Users:

299 Available active users			To add items: drag and drop to Selected active users		
First Name	Last Name	Organization			
Tester101	Tester101	MainTenant Org			
Tester102	Tester102	MainTenant Org			
Tester103	Tester103	MainTenant Org			
Tester104	Tester104	MainTenant Org			
Tester106	Tester106	MainTenant Org			

2 Selected active users		
First Name	Last Name	Organization
Tester10	Tester10	Org4
Tester105	Tester105	MainTenant Org

Save Cancel

2. Update the organization information as needed, for example, by adding a user, and then click **Save**.

Any GeoPro Web Application administrator can create an organization that is a peer or child organization, that is, the same or lower level organization. From a security perspective, there is a correlation between an administrator's role permissions in the organization's hierarchy and the number of device users they can manage.

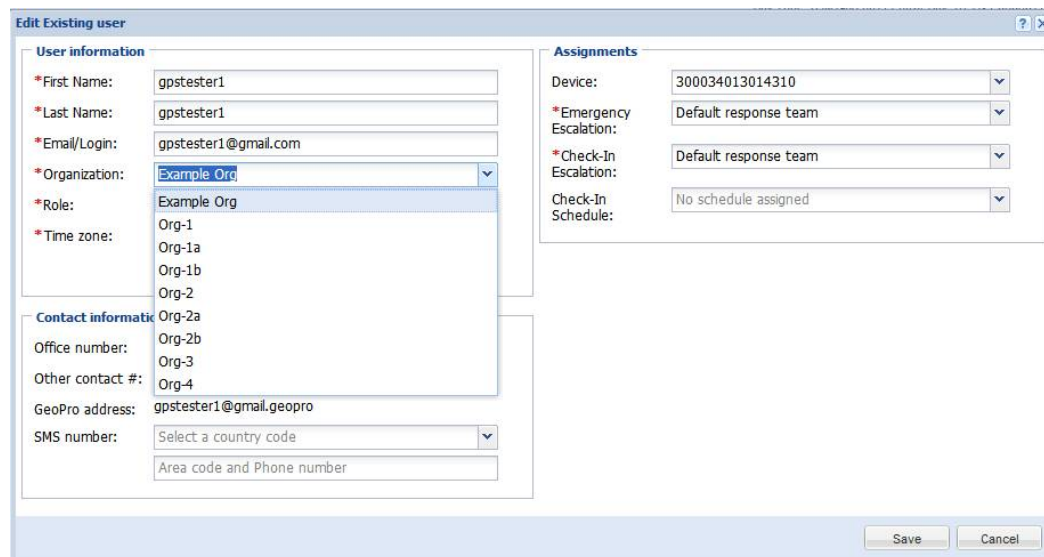
CAUTION: If you move yourself into a lower organization, for example, from Org-1 to Org-1a, and your Role permissions do not let you see 'All Organizations', you will no longer be able to access the same organizations, users, and devices as you did before, and you will not be able to move yourself back up to the previous level.

Deleting an Organization

Before deleting an organization, you must first reassign all active members to another organization. You cannot delete an organization containing active users.

To reassign an active user to another organization:

1. On the **Users** tab, select the user you want to reassign and click **Edit** . The **Edit Existing User** dialog box appears.



The **Edit Existing user** dialog box is shown. It has two main sections: **User information** and **Assignments**.

User information:

- *First Name: gpstester1
- *Last Name: gpstester1
- *Email/Login: gpstester1@gmail.com
- *Organization: Example Org (dropdown menu)
- *Role: Example Org (dropdown menu)
- *Time zone: (dropdown menu)

Contact information:

- Office number: (text field)
- Other contact #: (text field)
- GeoPro address: gpstester1@gmail.geopro
- SMS number: (text field with a dropdown for country code and a text field for area code and phone number)

Assignments:

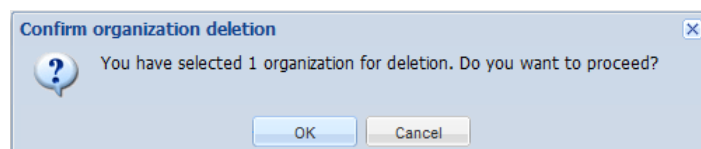
- Device: 300034013014310 (dropdown menu)
- *Emergency Escalation: Default response team (dropdown menu)
- *Check-In Escalation: Default response team (dropdown menu)
- Check-In Schedule: No schedule assigned (dropdown menu)

Buttons: Save, Cancel

2. From the **Organizations** list, select an organization other than the one you want to delete.
3. Click **Save**. For more information on working with users, refer to the [Managing Device Users](#) section.

To delete an organization:

1. On the **Organizations** tab, select the organization in the tree and then click **Delete** . The **Confirm organization deletion** dialog box appears.



The **Confirm organization deletion** dialog box is shown. It contains a question mark icon and the text: "You have selected 1 organization for deletion. Do you want to proceed?"

Buttons: OK, Cancel

2. Click **OK**. The organization is removed from the **Organizations** tree.

Managing Roles

Roles enable you to group users based on access permissions. In addition to two (2) built-in system roles (*Tenant Admin* and *Device User*), you can create new roles, specify permissions, and add users to those roles.

Setup

Organizations

Roles

Check-In Schedules

Users

Address Book

Message Book

Response Teams

Devices

Waypoints

Add

Edit

Delete

Role Name	Role Type	Setup	Organizations	Users	Roles	Devices	Waypoints	Address Book	Messages	Schedules	Response Teams	Organization Access
Admin Role (2 roles)												
Rental Admin	Admin			e		e				e	e	child orgs
Super Tenant Admin	Admin	e/d	e/d	e/d	e/d	e/d	e/d	e/d	e/d	e/d	e/d	all
Builtin System Role (2 roles)												
rp-internal admin	Super Admin	e/d	e/d	e/d	e/d	e/d	e/d	e/d	e/d	e/d	e/d	all
rp-internal device user	My GeoPro											none

Configuration Permissions

Config option	Add/Edit	Delete
Setup	☐	☐
Organizations	☐	☐
Users	☐	☐
Roles	☐	☐
Devices	☐	☐
Waypoints	☐	☐
Address Book	☐	☐
Messages	☐	☐
Check-in Schedules	☐	☐
Response Teams	☐	☐

check all
clear all

Table 9: Configuration permissions

Permission	Description
Setup	Administrators can change enterprise-level properties, such as the default map and coordinate system to be used.
Organizations	Administrators can create, modify, or delete organizations within a Tenant.
Users	Within a Tenant or organization, the Administrators can add, modify, or delete users, and assign devices, check-in schedules, or response teams to users.
Roles	Administrators can create a Role, or modify or delete permissions associated with a Role within a Tenant.
Devices	Administrators can assign or unassign devices to users within a Tenant or organization.
Waypoints	Administrators can 'Publish' or 'Reject' waypoints from other users.
Address Book	Administrators can add, modify, or delete external contacts associated with the Tenant global address book.
Messages	Administrators can add, modify, or delete predefined messages associated with the Tenant message book.
Check-in Schedules	Administrators can create, modify, or delete check-in schedules.
Response Teams	Administrators can create, modify, or delete members from a response team as well as response teams themselves.

Roles are created to define a specific group of permissions, by selecting the group of application functions that a given role is going to have, and assigning a role name. These roles are then assigned to individual user accounts within the application to grant those users the associated permissions. It is not possible to assign permissions directly to user accounts.

Administrators can edit existing roles. When a role is edited, all users assigned to that role have their permissions modified. Each user can have only one role assigned to them at any one time.

Role Rules

The following are mandatory rules.

- Each Tenant must have at least one Administrator.

- Tenant Administrators inherit the permissions assigned by GeoPro to the Tenant Administrator role.
- Tenant Users are assigned roles, which inherit permissions associated with those roles.
- Default roles for each tenant have been defined by GeoPro in the GeoPro Web Application template. These default roles are *Device User* and *Tenant Administrator*.
- Tenant Administrators can create new roles within their Tenant.
- Tenant Administrators cannot edit or delete default roles created by GeoPro. There must always be at least one Administrator role defined for each Tenant and that role must be assigned to at least one user.
- User permissions can be modified by a Tenant Administrator to add or remove permissions associated with the user role.

Tenant and Organization Relationship Rules

The relationship between a Tenant and an organization (Org) follows a hierarchical model (see [Figure 9](#)). The hierarchy depth is fully customizable, and the minimum configuration consists of one Tenant record.

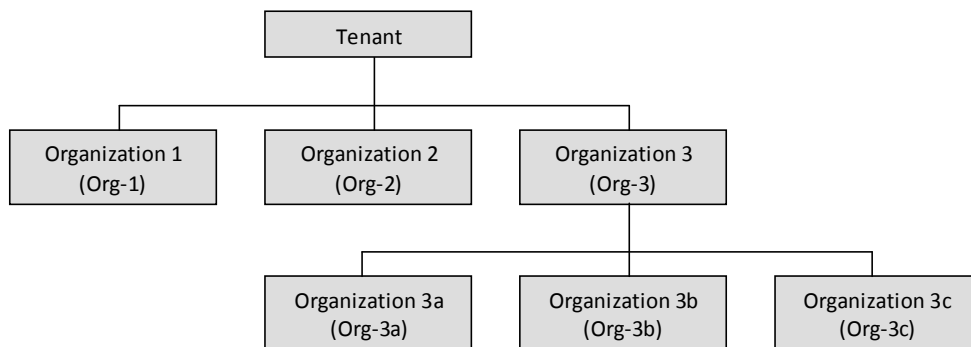


Figure 9: Tenant-Organization hierarchical relationship

If an Administrator is assigned a role which allows access to Peer and Children organizations, that user can manage users and devices of organizations at the same level and any level directly below that Administrator's organization. For example, an Org-3 Administrator, whose role allows peer and child access, can manage users and devices of Org-1, Org-2, Org-3, and Org-3a, Org-3b, and Org-3c.

During the creation of a role, a role is assigned visibility permissions that dictate the visibility of that role to other application users and to which GeoPro devices are visible.

Organization Hierarchy Permissions Options

Organization hierarchy (visibility) permissions define the access levels of each role within the Tenant. For example, to grant access to view all users across all organizations, select 'All organizations'.

The following are possible combinations of visibility permissions:

- Individual – can only see data associated directly with their user login. This is primarily used for individual GeoPro devices users.

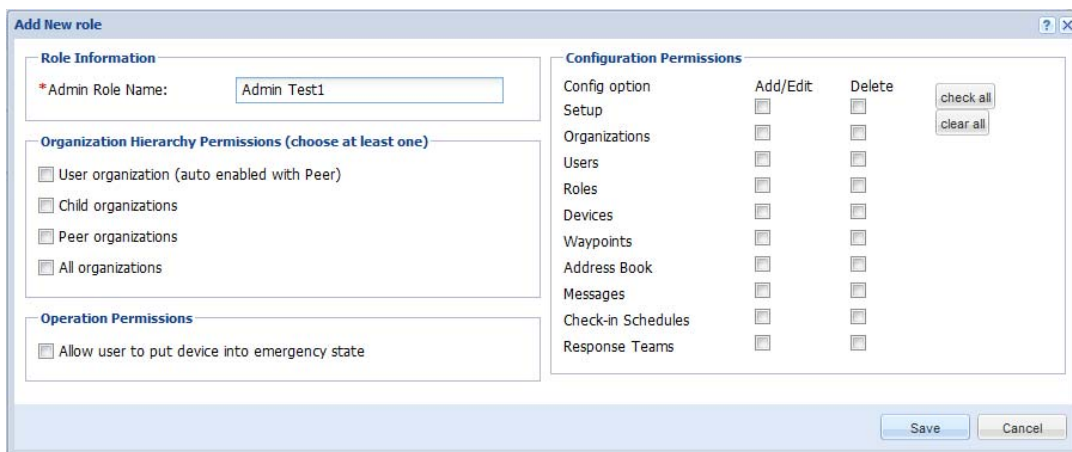
- **Org** – can see all users within the user organization and by extension apply all of their permissions to these users. For example, if someone has the right to declare an emergency and has visibility permissions at the Org level, they would be able to declare an emergency for all users directly linked to the Org. This is primarily used for department-level supervisors or administrators.
- **Org + Children Orgs** – can see all users within the organization and any children of that Org. This is primarily used for a higher-level supervisor.
- **Org + Children + Peers** – can see all users for the Org and all of the users within any children of that Org. In addition, they can see the users that belong to Orgs at the same level as their own organization. For instance, if an Org-3 user was assigned this visibility permission, they would see Org-3, Org-3a, Org-3b, Org-3c and Org-1, Org-2, but not Tenant.
- **All** – can see all users within a Tenant. This is mainly used for Tenant Administrators.
- **Org + Individual** – can see all users within the organization and specific individuals in other Orgs.

NOTE: As a rule, users can only belong to a single organization at a time.

Adding a New Role

To add a new role:

1. On the **Configuration > Roles** tab, click **Add** . The **Add New Role** dialog box appears.



The **Add New Role** dialog box contains the following sections:

- Role Information:**
 - *Admin Role Name:
- Organization Hierarchy Permissions (choose at least one):**
 - ☐ User organization (auto enabled with Peer)
 - ☐ Child organizations
 - ☐ Peer organizations
 - ☐ All organizations
- Operation Permissions:**
 - ☐ Allow user to put device into emergency state
- Configuration Permissions:**

Config option	Add/Edit	Delete
Setup	☐	☐
Organizations	☐	☐
Users	☐	☐
Roles	☐	☐
Devices	☐	☐
Waypoints	☐	☐
Address Book	☐	☐
Messages	☐	☐
Check-in Schedules	☐	☐
Response Teams	☐	☐

Buttons:

Buttons:

2. Enter the **Admin Role Name**.
3. Choose at least one of these **Organization Hierarchy Permissions** to specify tree access:
 - **User organization** – applies to your current organization; automatically enabled when you select **Peer Organizations**
 - **Child organizations** – applies to organizations belonging to your organization hierarchy
 - **Peer Organizations** – applies to organizations defined on the same level as your organization
 - **All organizations** – applies to all organizations defined within the Tenant
4. Optionally, under **Operation Permissions**, specify whether this role can put GeoPro *Messenger* devices into Emergency mode. If the checkbox is selected, administrators assigned this role can place a user into emergency mode from the GeoPro Web Application.

NOTE: It is important to decide whether any Administrator should be able to place a user into Emergency mode from the GeoPro Web Application.

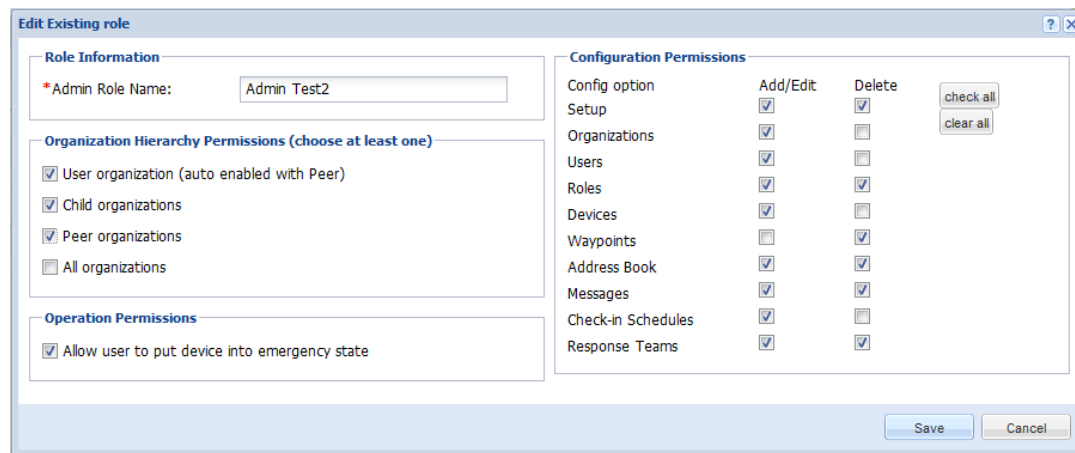
5. Select any number of **Configuration Permissions** to enable **Add/Edit** or **Delete** access to those functional areas. To select all options, click **check all**; to clear all options, click **clear all**.
6. Click **Save**. The role is added to the **Admin Role** group.

NOTE: Selecting all available options should be reserved for the “Super Admin” user account that manages all permissions at the Tenant level.

Editing a Role

To edit an existing role:

1. On the **Roles** tab, select a role and then click **Edit** . The **Edit Existing Role** dialog box appears.



The **Edit Existing role** dialog box contains the following sections:

- Role Information:**
 - *Admin Role Name:
- Organization Hierarchy Permissions (choose at least one):**
 - ☒ User organization (auto enabled with Peer)
 - ☒ Child organizations
 - ☒ Peer organizations
 - ☐ All organizations
- Operation Permissions:**
 - ☒ Allow user to put device into emergency state
- Configuration Permissions:**

Config option	Add/Edit	Delete
Setup	☒	☒
Organizations	☒	☐
Users	☒	☐
Roles	☒	☒
Devices	☒	☐
Waypoints	☐	☒
Address Book	☒	☒
Messages	☒	☒
Check-in Schedules	☒	☐
Response Teams	☒	☒

Buttons: **check all**, **clear all**

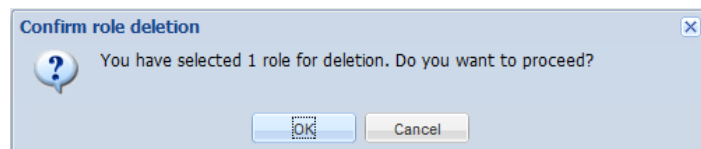
Buttons: **Save**, **Cancel**

2. Make changes to the permission settings.
3. Click **Save**.

Deleting a Role

To delete an existing role:

1. On the **Roles** tab, select a role and then click **Delete** . The **Confirm role deletion** dialog box appears.



The **Confirm role deletion** dialog box contains the following text:

Confirm role deletion

 You have selected 1 role for deletion. Do you want to proceed?

Buttons: **OK**, **Cancel**

2. Click **OK**. The role is removed from the roles list.

NOTE: The default (built-in system) roles cannot be deleted or modified.

Managing Check-in Schedules

Check-in schedules are often used to ensure the safety of field employees working in remote, alone, or dangerous circumstances. The check-in frequency and type of schedule (e.g., at specified times or specified intervals) is determined and set by the company policy and will vary from company to company, and also depend on the type of work environment.

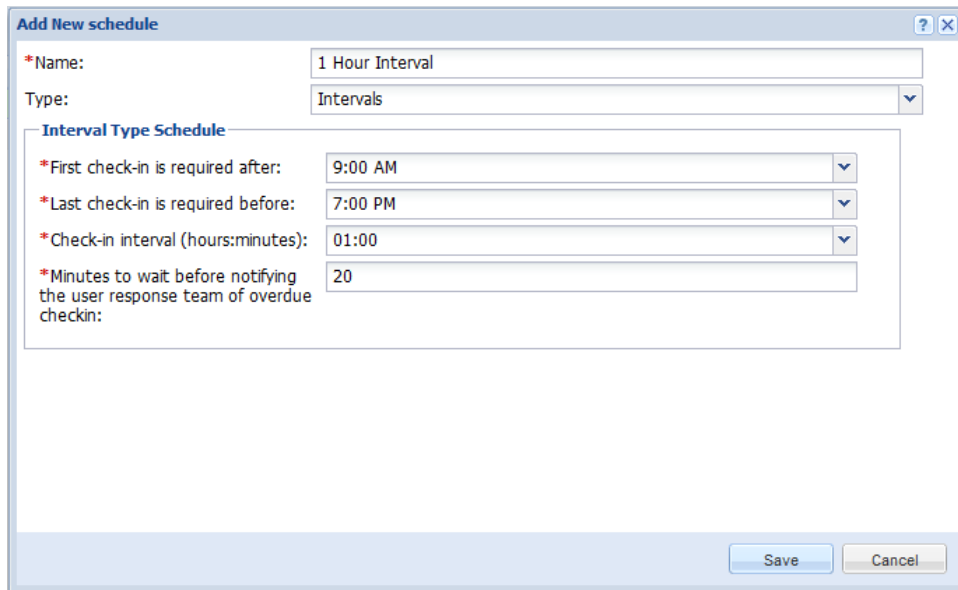
Check-in schedules allow you to specify times for GeoPro device user check-ins. It shows the type of schedule, whether it is in use, and a short description. The GeoPro Web Application supports two (2) types of schedules:

- Intervals – set and interval, for example, every 3 hours, when the user must periodically check-in
- Scheduled Times – set specific times of the day when the user must check-in

Adding a New Check-in Schedule

To add a new **interval** check-in schedule:

1. On the Configuration > Check-in Schedules tab, click Add .
2. In the **Add New Schedule** dialog box, enter a schedule **Name** and then select **Intervals** from the **Type** drop-down.



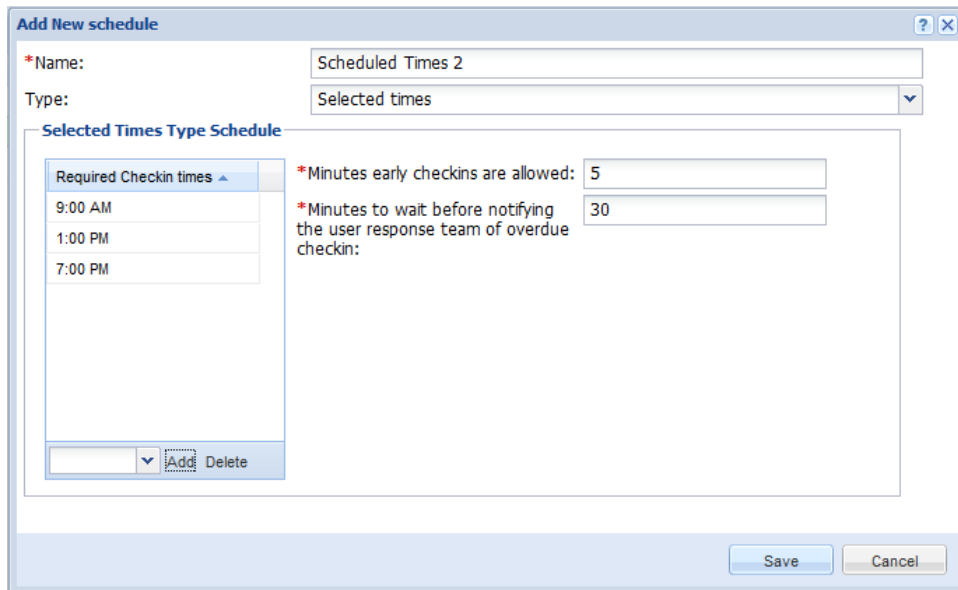
The dialog box titled "Add New schedule" contains the following fields:

- *Name:** 1 Hour Interval
- Type:** Intervals (selected from a dropdown menu)
- Interval Type Schedule** section:
 - *First check-in is required after:** 9:00 AM (dropdown)
 - *Last check-in is required before:** 7:00 PM (dropdown)
 - *Check-in interval (hours:minutes):** 01:00 (dropdown)
 - *Minutes to wait before notifying the user response team of overdue checkin:** 20
- Buttons:** Save, Cancel

3. Specify the period when the user is required to check-in, the check-in interval, and the number of minutes to wait before notifying the response team if the user does not check-in on time.
4. Click **Save**.

To add a new **scheduled times** check-in schedule:

1. On the **Check-in Schedules** tab, click Add .
2. In the **Add New Schedule** dialog box, enter a schedule **Name** and then select **Selected Times** from the **Type** drop-down.



Add New schedule

*Name: Scheduled Times 2

Type: Selected times

Selected Times Type Schedule

Required Checkin times ▲

- 9:00 AM
- 1:00 PM
- 7:00 PM

*Minutes early checkins are allowed: 5

*Minutes to wait before notifying the user response team of overdue checkin: 30

▼ Add Delete

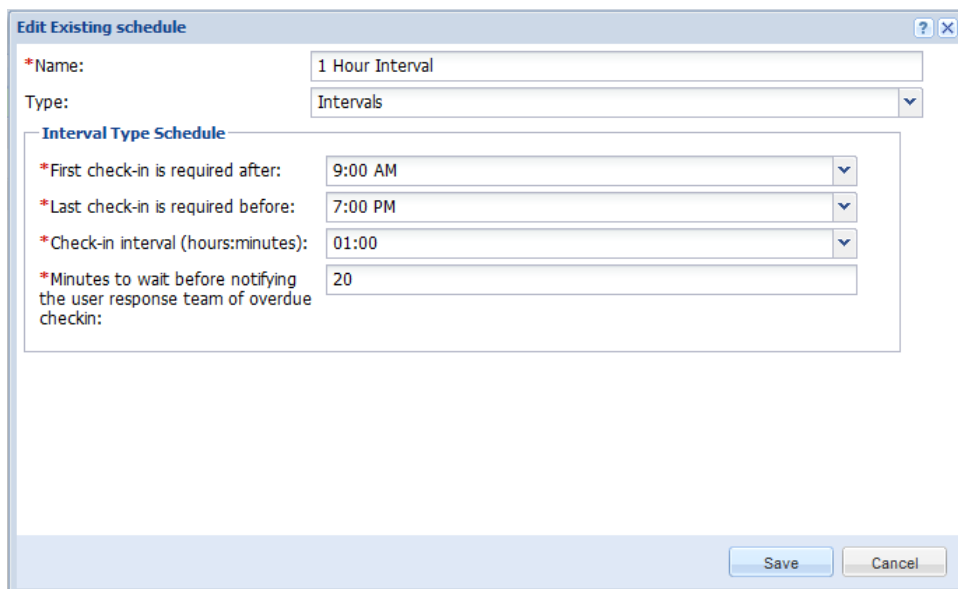
Save Cancel

3. Specify the number of minutes allowed for early check-ins and the number of minutes to wait before notifying the response team if the user does not check-in on time.
4. In the **Required Check-in Times** box, select time(s) from the drop-down and then click **Add**.
5. Click **Save**.

Editing a Check-in Schedule

To edit an existing schedule:

1. On the **Check-in Schedules** tab, select a schedule and then click **Edit** . The **Edit Existing Schedule** dialog box appears.



Edit Existing schedule

*Name: 1 Hour Interval

Type: Intervals

Interval Type Schedule

*First check-in is required after: 9:00 AM

*Last check-in is required before: 7:00 PM

*Check-in interval (hours:minutes): 01:00

*Minutes to wait before notifying the user response team of overdue checkin: 20

Save Cancel

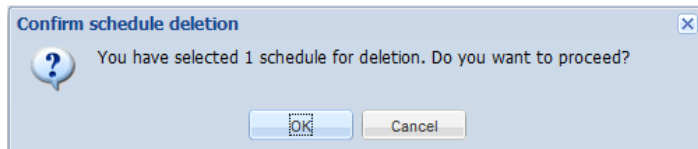
2. Make changes to the schedule settings.
3. Click **Save**.

NOTE: A check-in schedule that is assigned to a user cannot be deleted or modified; it must first be unassigned.

Deleting a Check-in Schedule

To delete an existing schedule:

1. On the **Check-in Schedules** tab, select a schedule and then click **Delete** . The **Confirm schedule deletion** dialog box appears.



2. Click **OK**. The schedule is removed from the check-in schedules list.

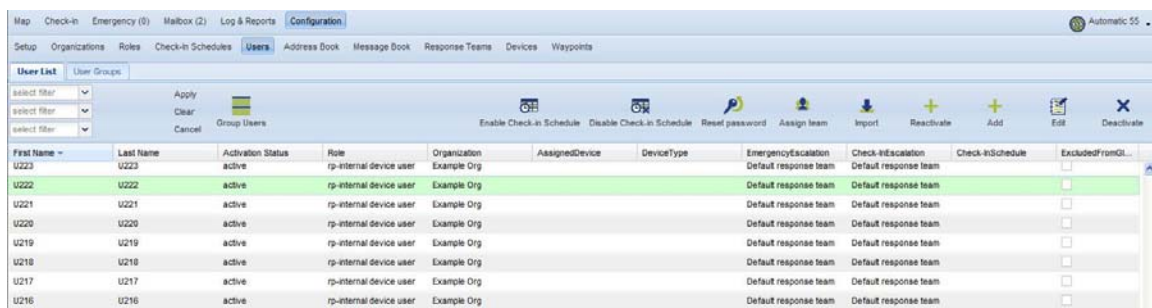
NOTE: A check-in schedule must first be unassigned to be deleted or modified.

Managing Device Users

Every Tenant is composed of users; some are only GeoPro Administrators, others are only GeoPro device users, and some may be both. Users must be added to the system and assigned roles. Device users are assigned devices, response teams, and a check-in schedule, if appropriate.

The **Users** tab contains a complete list of users with GeoPro compatible devices and groups defined in the GeoPro Web Application. It enables you to apply or cancel an assigned check-in schedule, reset user password, assign response teams to a user, import new users from a CSV file, and add, edit, deactivate and reactivate users. There are two (2) tabs:

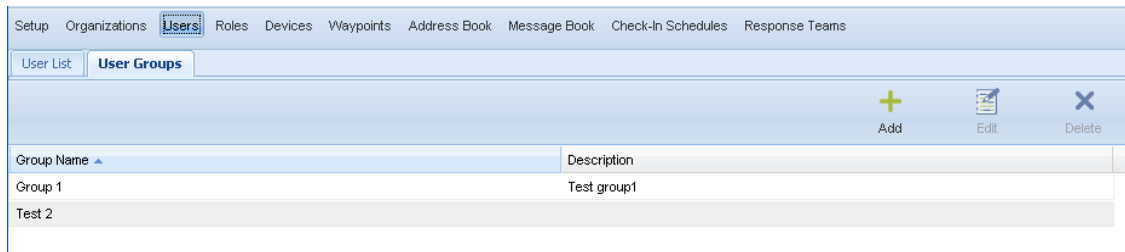
- **User List** – provides a complete list of GeoPro users showing their status, role, team and organization assignments, device IMEI, and check-in schedule. You can filter users using up to three (3) parameters (see [Filtering User List View](#)), and display users in groups by clicking the **Group Users** button. Use this tab to manage GeoPro users.



The screenshot shows the "Users" tab in the GeoPro web application. It features a "User List" section with filters and a table of users. The table has columns for First Name, Last Name, Activation Status, Role, Organization, Assigned Device, Device Type, Emergency Escalation, Check-In Escalation, Check-In Schedule, and Excluded From GL. The table lists several users, all with "active" status and "rp-internal device user" role, assigned to "Example Org".

First Name	Last Name	Activation Status	Role	Organization	Assigned Device	Device Type	Emergency Escalation	Check-In Escalation	Check-In Schedule	Excluded From GL
U223	U223	active	rp-internal device user	Example Org			Default response team	Default response team		
U222	U222	active	rp-internal device user	Example Org			Default response team	Default response team		
U221	U221	active	rp-internal device user	Example Org			Default response team	Default response team		
U220	U220	active	rp-internal device user	Example Org			Default response team	Default response team		
U219	U219	active	rp-internal device user	Example Org			Default response team	Default response team		
U218	U218	active	rp-internal device user	Example Org			Default response team	Default response team		
U217	U217	active	rp-internal device user	Example Org			Default response team	Default response team		
U216	U216	active	rp-internal device user	Example Org			Default response team	Default response team		

- **User Groups** – provides a list of defined user groups and allows you to manage these groups. If there are no groups defined, you can define them by clicking **Add** .



Enabling and Disabling an Assigned Check-in Schedule

While GeoPro *Messenger* devices use their Field Status indicator to allow the Web Application to initiate an assigned Check-in schedule automatically, other GeoPro compatible devices may not. For those devices the Administrator must enable and disable Check-in schedules manually. This section describes that process.

To activate an assigned check-in schedule for a device user:

1. On the **Users > User List** tab, select a user and click **Enable Check-in Schedule** . The **Confirm user enable check-in schedule** dialog box appears.
2. Click **OK**. A message is sent to the user's device stating that the Check-in schedule is now active.

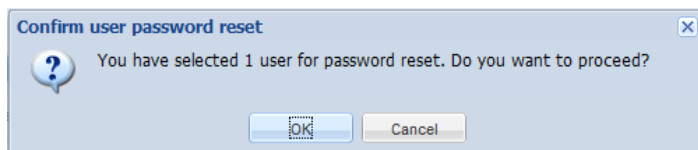
To disable (i.e. Unassign) a check-in schedule that's in effect:

1. On the **Users > User List** tab, select a user and click **Disable Check-in Schedule** . The **Confirm user disable check-in schedule** dialog box appears.
2. Click **OK**. A message is sent to the user stating that the Check-in schedule is now disabled.

Resetting a User's Password

To reset a user's password:

1. On the **Users > User List** tab, select a user and then click **Reset Password** . The **Confirm user password reset** dialog box appears.

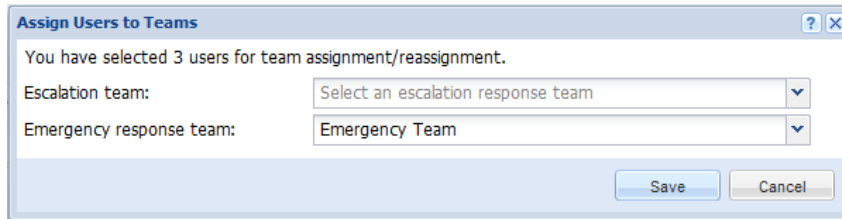


2. Click **OK**. The user's password is reset to a default password. During the next login, the user will be prompted to change their password.

Assigning a Response Team to a User

To assign or reassign escalation and emergency response teams to a user:

1. On the **Users > User List** tab, select a user and then click **Assign Team** . The **Assign Users to Teams** dialog box appears. The dialog box indicates the number of users you have selected, who will be assigned the Escalation and Emergency response teams you select.



Assign Users to Teams

You have selected 3 users for team assignment/reassignment.

Escalation team:

Emergency response team:

2. Select escalation and emergency response teams from the drop-downs.
3. Click **Save**. The new assignment takes effect and the information on the User List tab is updated.

Reactivating a User

A deactivated user can be reactivated; to reactivate a user:

1. On the **Users > User List** tab, select the user to be reactivated and click **Reactivate** . The **Confirm user reactivate** confirmation box appears



Confirm user reactivate

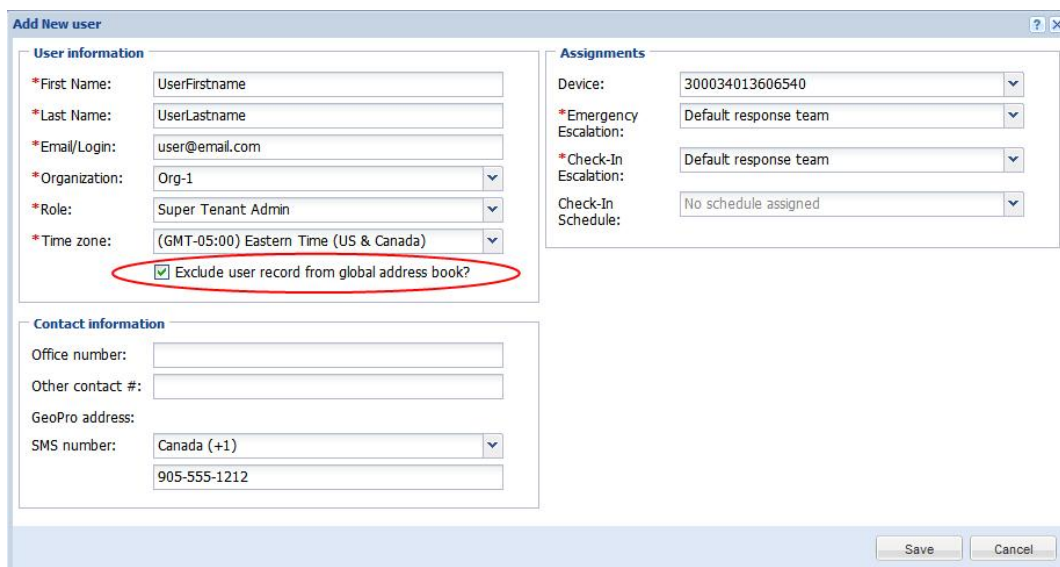
You have selected 1 user for reactivate. Do you want to proceed?

2. Click **OK** to confirm. The user's **Activation Status** changes to **Active**.

Adding a New User

To add a new GeoPro user:

1. On the **Users > User List** tab, click **Add** . The **Add New User** dialog box appears.



Add New user

User information

*First Name:

*Last Name:

*Email/Login:

*Organization:

*Role:

*Time zone:

☒ Exclude user record from global address book?

Contact information

Office number:

Other contact #:

GeoPro address:

SMS number:

Assignments

Device:

*Emergency Escalation:

*Check-In Escalation:

Check-In Schedule:

2. Enter all required information or select it from drop-downs.

NOTE: You must select a Country Code if you enter an SMS number.

3. Normally, when a user is added, the user information is automatically added to the Global Address book. To exclude the user information from the Global Address book, check the “**Exclude user record from global address book?**” checkbox

NOTE: a user excluded from the Global Address book is unavailable to be put into a Response Team

4. Click **Save**. The new user is added to the User List.

Importing New Users as a Batch

To import a batch of new users from a CSV file:

1. On the **Users > User List** tab, click **Import** . The **Add New User Import** dialog box appears.



The dialog box titled "Add New user import" contains two fields: "*Role:" with a dropdown menu showing "Super Tenant Admin" and "*CSV File:" with a text box showing "New_Users.csv" and a browse button (downward arrow icon). At the bottom are "Save" and "Cancel" buttons.

2. Select a **Role** for the new users from the drop-down.
3. Click the browse  button and navigate to the saved CSV file.
4. Click **Save**. The new users are added to the User List.

The CSV file format contains the fields shown in the figure, below, separated by commas. All column headings must be present. All fields must have a value, except for *OfficePhoneNumber*, *OtherContactNumber*, or *SMSNumber* which can have a number, “null”, or be blank.

LoginName	Firstname	Lastname	OfficePhoneNumber	OtherContactNumber	SMSNumber
4test@roadpost.com	1testfname	1testlname	1234567	7654321	16477065898
5test@roadpost.com	2testfname	2testlname	319	null	
6test@roadpost.com	3testfname	3testlname	911	null	null

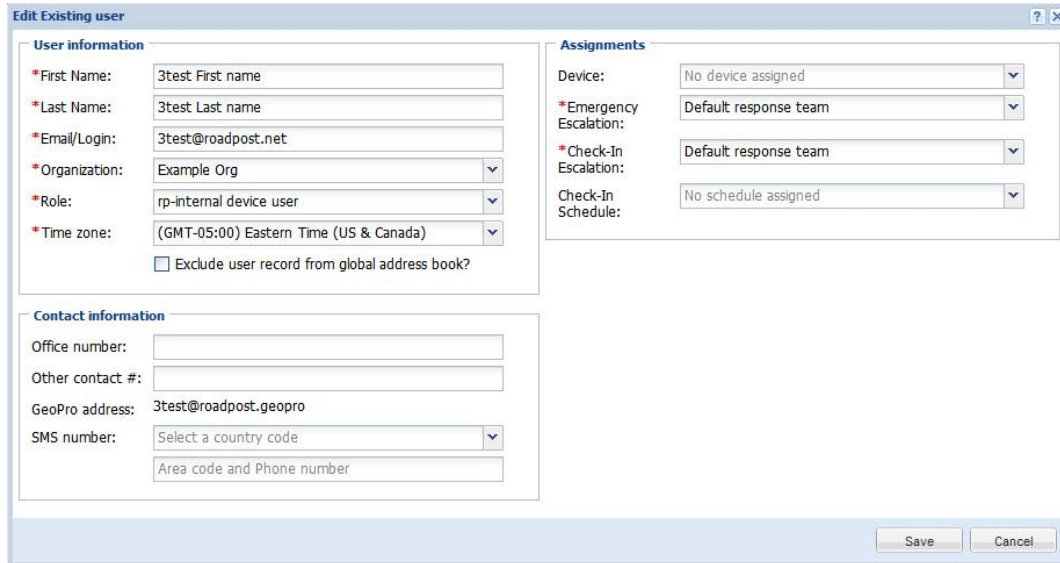
NOTE: The Country Code must prefix the SMS number. If it does not, you will need to edit the user to add the Country Code after importing.

For North American phone numbers, a one (1) must be at the beginning of the SMS number.

Editing User Information

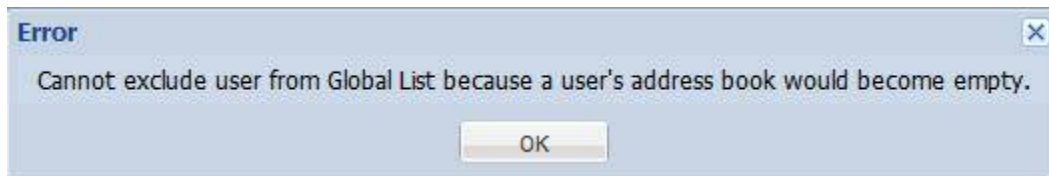
To edit existing user information:

1. On the **Users > User List** tab, select a user and then click **Edit** . The **Edit Existing User** dialog box appears.



2. Make changes to the user information.
3. To exclude the user information from the Global Address book, check the “**Exclude user record from global address book?**” checkbox.

If as part of editing an existing user, the user is to be excluded from the Global Address book but the user is the only address in someone’s personal Address Book (accessed by that person’s Device Manager), an error message appears:



You need to first determine who has this person as their only address in their personal Address book and get them to remove that person from it.

4. Click **Save**.

NOTE: To remove a phone number, country code, device IMEI, or check-in schedule, highlight the item and press the [Delete] key on the keyboard. The item is removed when you move to another field.

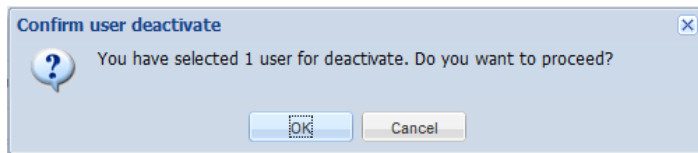
Deactivating a User

When a user is no longer going to be part of the GeoPro service, the user can be “deactivated”. Deactivation preserves the user’s historical activities (breadcrumbs and events); therefore deactivation is different from deleting a user. Deactivated users can be searched and events can be viewed as needed.

NOTE: a deactivated a user can be reactivated.

To deactivate a user account:

1. On the **Users > User List** tab, select a user and then click **Deactivate** . The **Confirm user deactivate** dialog box appears.



2. Click **OK**. The activation status in the User List changes to 'Inactive'.

NOTE: You cannot deactivate a user with an assigned GeoPro compatible device. Use the **Edit Existing User** dialog box to first unassign the device, and then deactivate the user.

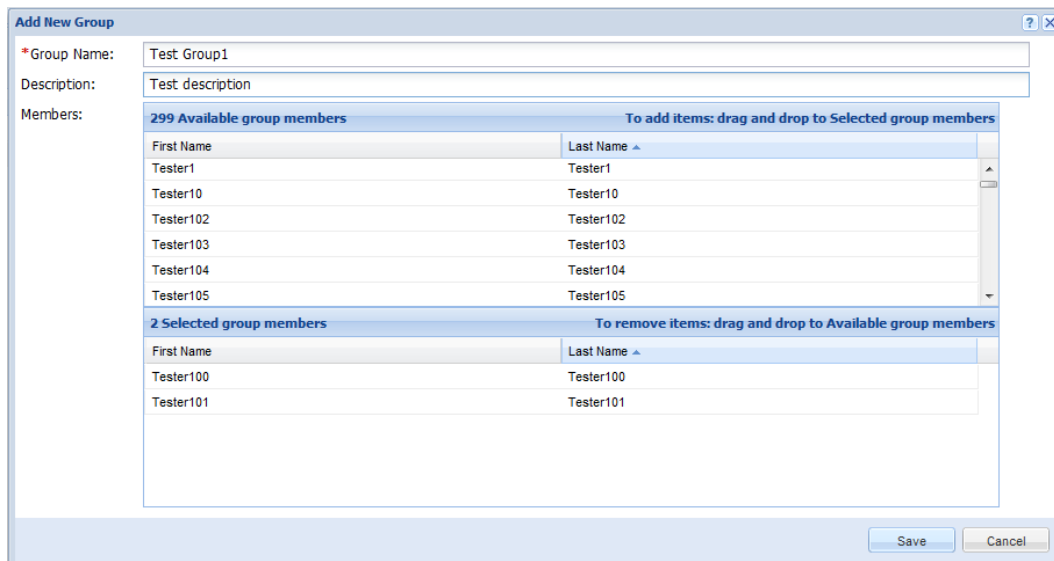
Managing User Groups

Users are assigned to groups according to their function; users can belong to more than one group. Groups make it easier for Administrators to monitor users and send messages to them based on their group associations – for example dispatching a message to all users in the group.

Adding a New Group

To add a new user group:

1. On the **Users > User Groups** tab, click **Add** . The **Add New Group** dialog box appears.



2. Enter a name and description, and drag-and-drop a user from the **Available group members** area to the **Selected group members** area. To select multiple users, use the [Ctrl] or [Shift] keys.

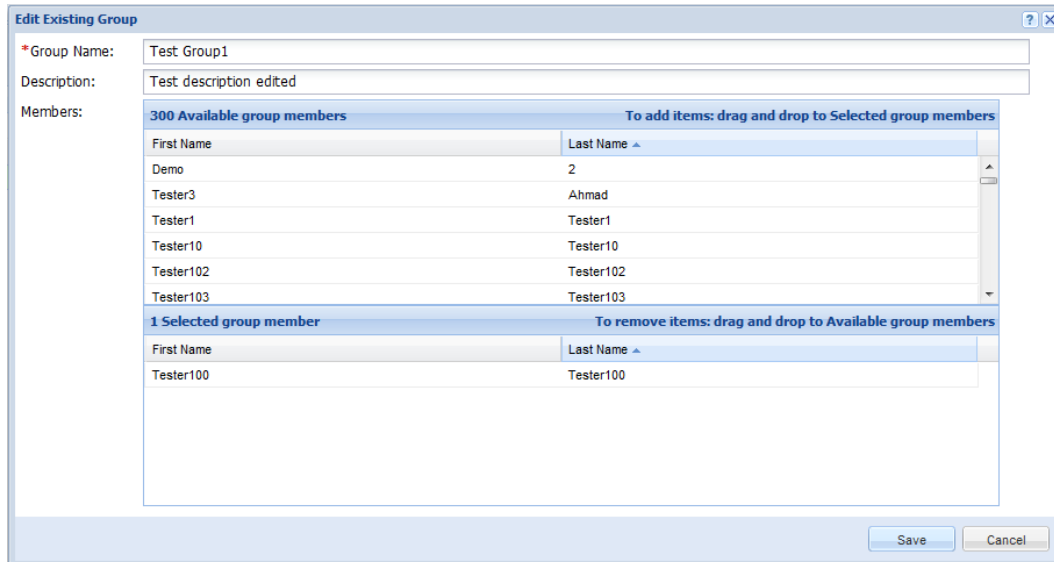
NOTE: To remove a user from the group membership, drag-and-drop the user from the **Selected group members** area to the **Available group members** area.

3. Click **Save**. The new group is added to the User Groups list.

Editing Group Information

To edit existing user group information:

1. On the **Users > User Groups** tab, select a group and then click **Edit** . The **Edit Existing Group** dialog box appears.



The **Edit Existing Group** dialog box contains the following fields and sections:

- Group Name:** Test Group1
- Description:** Test description edited
- Members:**
 - 300 Available group members** (To add items: drag and drop to Selected group members)

First Name	Last Name
Demo	2
Tester3	Ahmad
Tester1	Tester1
Tester10	Tester10
Tester102	Tester102
Tester103	Tester103
 - 1 Selected group member** (To remove items: drag and drop to Available group members)

First Name	Last Name
Tester100	Tester100

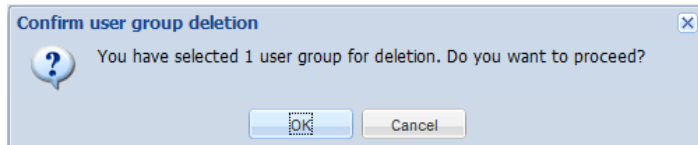
Buttons: **Save**, **Cancel**

2. Make changes to the group information.
3. Click **Save**.

Deleting a Group

To edit existing user group information:

1. On the **Users > User Groups** tab, select a group and then click **Delete** . The **Confirm user group deletion** dialog box appears.



The **Confirm user group deletion** dialog box contains the following text and buttons:

Confirm user group deletion

You have selected 1 user group for deletion. Do you want to proceed?

Buttons: **OK**, **Cancel**

2. Click **OK**. The group is removed from the User Groups list.

Managing Devices

When devices are purchased and processing is complete, their IMEIs appear under the **Configuration > Devices** tab as unassigned. Devices can be assigned to users from either the **Devices** tab or the **Users** tab, once a user is edited. The **Devices** tab lists all GeoPro compatible devices currently available to the Tenant or organization. It enables you to view the information associated with each device, assign a device to a user, enable a Check-in schedule for a user, or disable Check-in schedules which no longer apply. The device information includes IMEI, user name and organization, network, field and assignment status.

Map Check-in Emergency (0) Mailbox (5) Log & Reports Configuration						Automatic 16
Setup Organizations Roles Check-In Schedules Users Address Book Message Book Response Teams Devices Waypoints						
						  
						Enable Check-in Schedule Disable Check-in Schedule Edit
IMEI	Network Status	Assignment Status	Assigned User First Name	Assigned User Last Name	Organization	
300034013607560	Active	Assigned	Gerald	Karmadi	Example Org	
300034013612470	Active	Assigned	Lu	Parente	Example Org	
300034013619480	Active	AssignedMessageBookSynced	Jeff	Wilson	Example Org	
300034013014310	Active	AssignmentPending	gpstester1	gpstester1	Example Org	
300034013014320	Active	AssignmentPending	Test4	GPS 8 (Long fix)	Example Org	
300034013018300	Active	AssignmentPending	Wesley	Robb	Example Org	
300034013614480	Active	AssignmentPending	Heart	Beat	Example Org	
300034013615470	Active	AssignmentPending	Test7	GPS 16-LP	Example Org	
300034013907760	Active	AssignmentPending	Test2	GPS 8-LP (nomod)	Example Org	
300234010708230	Active	AssignmentPending	GPsm	TesterM	Example Org	
300034013016300	Active	Unassigned				
300034013606540	Active	Unassigned				
300234010522480	Active	Unassigned				

Editing Device Information

To edit GeoPro device information:

- On the **Configuration > Devices** tab, select a device and then click **Edit** . The **Edit Existing Device** dialog box appears.

Edit Existing Device

Assigned User: Lu Parente
Organization: Example Org
Device Type: Messenger
IMEI: 300034013612470
Firmware: 1.0.0n8r372-001
Network Status: Active
Activation Date: 2010-05-14
Deactivation Date:
Synchronized: yes
Last Sync Date: 2011-04-11
Assignment Status: Assigned

Save Cancel

NOTE: The only information you can change is the user assigned to the device.

- Select a different **Assigned User** from the drop-down. Only users who do not currently have a device assigned appear in the drop-down.
- Click **Save**.

Managing Waypoints

The Waypoints service is an on-demand service that differs from breadcrumbs because waypoints are permanent as an overlay on the GeoPro Web Application map. Waypoints have different icons, depending on the type, for example, a cave or shelter. When a field user creates a waypoint using a

GeoPro compatible device, it can be uploaded either over-the-air (OTA) or through GeoPro Sync. The key information contained in a waypoint includes:

- Name
- Description
- Category
- Location
- Creator's first and last name

Field users propose waypoints for publication (refer to your device user guide for more information). Using the Admin Center, you can either publish a proposed waypoint (that is, make it viewable within the map interface by any GeoPro user within your enterprise), or reject it (that is, return it to the person who created it, making it private and only visible to that person).

NOTE: All waypoints are considered private if uploaded through the synchronization process, also known as GeoPro Sync. This means that the uploaded waypoints are visible in the Device Manager only to the GeoPro device user who personally created them. Waypoints that are uploaded OTA are automatically “proposed for publication” and are visible to GeoPro Web Application Administrators.

The **Waypoints** tab consists of the **Waypoint List** and **Waypoint Categories** tabs.

Waypoint List

The Waypoint list is a list of proposed and published waypoints. You can edit waypoint information, and make public ('publish') or reject proposed ('pending') waypoints.

Setup

Organizations

Roles

Check-In Schedules

Users

Address Book

Message Book

Response Teams

Devices

Waypoints

Waypoint List

Waypoint Categories

×

Reject

🌐

Publish

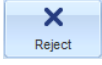
✎

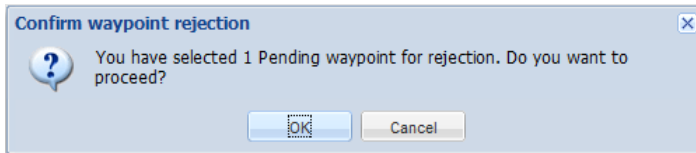
Edit

Waypoint Name	Waypoint Description	Waypoint Category	Location	Creator First Name	Creator Last Name
	~~~~~		lat: 43.589033, lon: -79.5904...	Tester10	Tester10
WP			lat: 43.589738, lon: -79.5920...	Tester10	Tester10
RP HQ			lat: 43.590028, lon: -79.5911...	Lu	Parente
SKIMMER EAST			lat: 33.049695, lon: -96.7738...	GPSm	TesterM
WEST SKIMMER			lat: 33.056396, lon: -96.7761...	GPSm	TesterM
MNR Head Office in SSM	MNR-LRC	Shelter	lat: 46.50403, lon: -84.30109...	Wesley	Robb
Public (8 waypoints)					
	WP RESEND	GPS Station Markers	lat: 43.589938, lon: -79.5912...	Tester10	Tester10
	RRR	Caves	lat: 43.58988, lon: -79.59144...	Tester10	Tester10
Corniglia, Italy	Corniglia	Towns or Village	lat: 44.120011, lon: 9.707673...	Tester10	Tester10
Gas Station	PETRO	Fuel depot	lat: 43.779221, lon: -79.5974...	Tester10	Tester10
Manarola, Italy	Manarola	Towns or Village	lat: 44.10758, lon: 9.725391...	Tester10	Tester10
Monterossa al Mare, Italy	Monterosso al Mare	Towns or Village	lat: 44.145258, lon: 9.646811...	Tester10	Tester10
Riomaggiore, Italy	Riomaggiore	Towns or Village	lat: 44.097526, lon: 9.738748...	Tester10	Tester10
Vernazza, Italy	Vernazza	Towns or Village	lat: 44.135076, lon: 9.684471...	Tester10	Tester10

## Rejecting a Waypoint

To reject a proposed waypoint:

1. On the **Waypoints > Waypoint List** tab, select a pending waypoint and click **Reject** . The **Confirm waypoint rejection** dialog box appears.

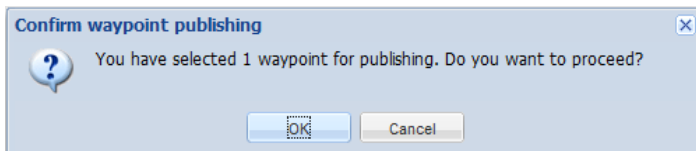


2. Click **OK**. The waypoint is rejected and completely removed from the list.

## Publishing a Waypoint

To publish a proposed waypoint:

1. On the **Waypoint List** tab, select a pending waypoint and click **Publish** . The **Confirm waypoint publishing** dialog box appears.

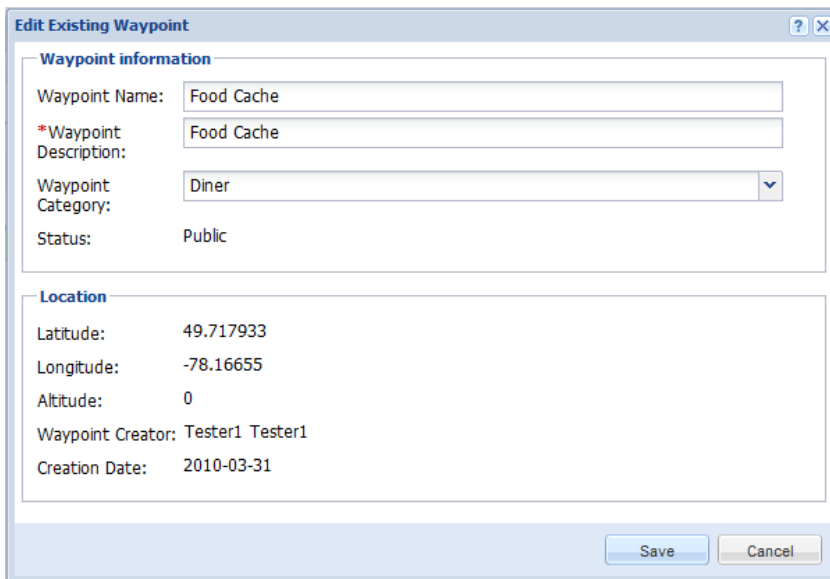


2. Click **OK**. The waypoint is published and added to the public list.

## Editing Waypoint Information

To edit existing waypoint information:

1. On the **Waypoint List** tab, select a waypoint and then click **Edit** . The **Edit Existing Waypoint** dialog box appears.



A dialog box titled "Edit Existing Waypoint" with a question mark icon. It contains two sections: "Waypoint information" and "Location".

**Waypoint information**

- Waypoint Name: Food Cache
- *Waypoint Description: Food Cache
- Waypoint Category: Diner (dropdown menu)
- Status: Public

**Location**

- Latitude: 49.717933
- Longitude: -78.16655
- Altitude: 0
- Waypoint Creator: Tester1 Tester1
- Creation Date: 2010-03-31

At the bottom are "Save" and "Cancel" buttons.

2. Make changes to the waypoint information.
3. Click **Save**.

## Waypoint Categories

Waypoints are organized in predefined categories to make administration more effective. There is a set of default waypoint categories supplied with the GeoPro Web Application, which you can edit or delete, and you can also create additional custom categories.

Setup Organizations Roles Check-In Schedules Users Address Book Message Book Response Teams Devices <b>Waypoints</b>	
Waypoint List <b>Waypoint Categories</b>	
+   ✎   ✕     Add Edit Delete	
Category Name ▲	Icon
Airport	
Campsite	
Caves	
Conservation Area	
Diner	
Fuel depot	
GPS Station Markers	
Shelter	
Station	
Towns or Village	
Trail Heads	
UNESCO Sites	

## Adding a New Waypoint Category

To add a new waypoint category:

- On the **Waypoints > Waypoint Categories** tab, click **Add** . The **Add New Waypoint Category** dialog box appears.

Add New Waypoint Category

*Waypoint Category Name: Test Category

Icon File: Select a file 

Save

Cancel

- Type a name for the category, and then click the **browse**  button and navigate to a saved icon file.
- Click **Save**. The new waypoint category is added to the list.

## Editing Waypoint Category Information

To edit existing waypoint category information:

- On the **Waypoint Categories** tab, select a category and then click **Edit** . The **Edit Existing Waypoint Category** dialog box appears.

Edit Existing Waypoint Category

*Waypoint Category Name: Watchtower

Icon File: Select a file 

Save

Cancel

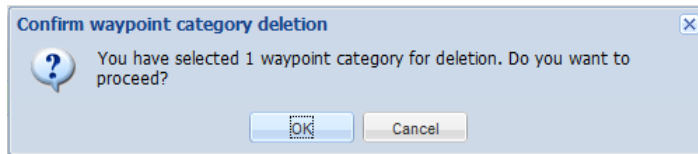
2. Make changes to the name or icon file.
3. Click **Save**.

**NOTE:** Imported waypoint icons must be in PNG format and 24x24 pixels in size.

## Deleting a Waypoint Category

To delete a waypoint category:

1. On the **Waypoint Categories** tab, select a category and then click **Delete** . The **Confirm waypoint category deletion** dialog box appears.



2. Click **OK**. The selected waypoint category is removed from the list.

## Managing the Global Address Book

The global address book automatically contains all GeoPro users for your enterprise. Use the **Address Book** tab to add additional contacts, such as external people who are not GeoPro users (for example, external First Responders).

Setup

Organizations

Roles

Check-In Schedules

Users

Address Book

Message Book

Response Teams

Devices

Waypoints

Add

Edit

Delete

First Name	Last Name	Organization	Email Address	Office Phone	Mobile Phone	SMS Address	GeoPro Address
Company Contact (87 contacts)							
U247	U247	Example Org	u247@user.com	905-272-3976	4165555551	14165555551	u247@user.geopro
U248	U248	Example Org	u248@user.com	905-272-3977	4165555551	14165555551	u248@user.geopro
U249	U249	Example Org	u249@user.com	905-272-3978	4165555551	14165555551	u249@user.geopro
U250	U250	Example Org	u250@user.com	905-272-3979	4165555551	14165555551	u250@user.geopro
U251	U251	Example Org	u251@user.com	905-272-3980	4165555551	14165555551	u251@user.geopro
U252	U252	Example Org	u252@user.com	905-272-3981	4165555551	14165555551	u252@user.geopro
U253	U253	Example Org	u253@user.com	905-272-3982	4165555551	14165555551	u253@user.geopro
U254	U254	Example Org	u254@user.com	905-272-3983	4165555551	14165555551	u254@user.geopro
U255	U255	Example Org	u255@user.com	905-272-3984	4165555551	14165555551	u255@user.geopro
U256	U256	Example Org	u256@user.com	905-272-3985	4165555551	14165555551	u256@user.geopro
U257	U257	Example Org	u257@user.com	905-272-3986	4165555551	14165555551	u257@user.geopro
U258	U258	Example Org	u258@user.com	905-272-3987	4165555551	14165555551	u258@user.geopro
Wesley	Robb	Example Org	wrobb@roadpost.com				wrobb@roadpost.ge...
Company External Contact (2 contacts)							
L.	P.		lparente@gmail.com			16472805408	
Tester	External		externaltester@gmail...			5437171534	

## Adding a New External Contact

To add a new external contact:

1. On the **Configuration > Address Book** tab, click **Add** . The **Add New Contact** dialog box appears.



**Add New Contact**

**User Information**

*Last Name: Tester-1

*First Name: Remote

**Contact Information**

Office Number:

*Email: remote1@rp.net

Other Contact #:

External Agency:

SMS number: Aruba (+297)

Area code and Phone number

Save Cancel

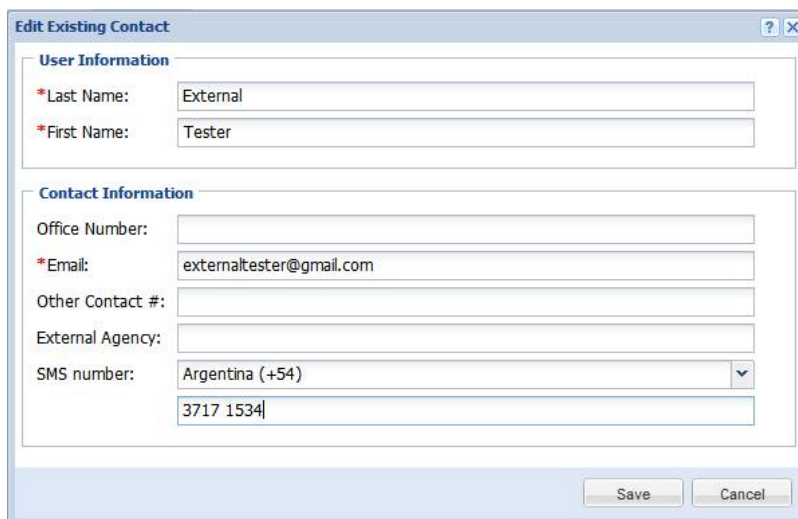
2. Type the user name and email address, and any other optional information.
3. Click **Save**. The new contact is added to the **Company External Contact** list.

## Editing Contact Information

**NOTE:** You can only edit information about external contacts. To edit a GeoPro user's contact information, you must use the **Configuration > Users** tab.

To edit existing contact information for an external contact:

1. On the **Address Book** tab, select a contact in the **Company External Contact** area and then click **Edit** . The **Edit Existing Contact** dialog box appears.



**Edit Existing Contact**

**User Information**

*Last Name: External

*First Name: Tester

**Contact Information**

Office Number:

*Email: externaltester@gmail.com

Other Contact #:

External Agency:

SMS number: Argentina (+54)

3717 1534

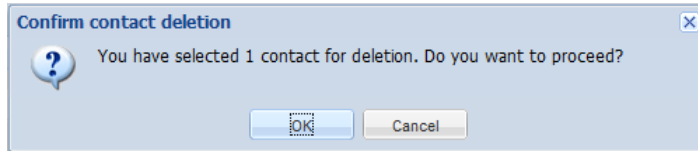
Save Cancel

2. Click **Save**.

## Deleting a Contact

To delete an external contact:

1. On the **Address Book** tab, select a contact in the **Company External Contact** area and then click **Delete** . The **Confirm contact deletion** dialog box appears.

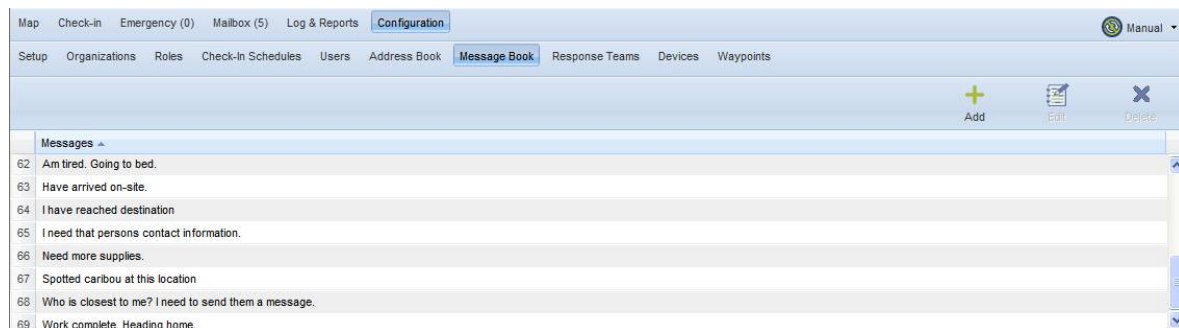


2. Click **OK**. The contact is removed from the external contact list.

## Managing Predefined Messages

There is a set of predefined messages supplied with the GeoPro Web Application that you can edit or delete, and you can also create additional custom messages suitable for your enterprise's business needs.

Use the **Message Book** tab to create predefined messages that can be selected by GeoPro device users. The selected messages are synchronized with the GeoPro device, using the GeoPro Sync application, to facilitate routine messaging from the device and saving users the effort of typing the message using the device's on-screen keyboard.

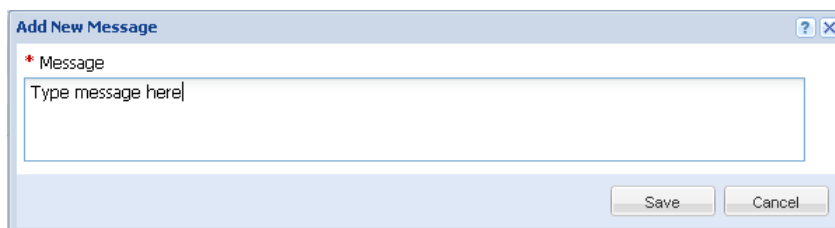


**NOTE:** All messages, whether composed, or modifications to a predefined message are a maximum of 160 characters long.

## Adding a New Message

To add a new predefined message:

1. On the **Configuration > Message Book** tab, click **Add** . The **Add New Message** dialog box appears.



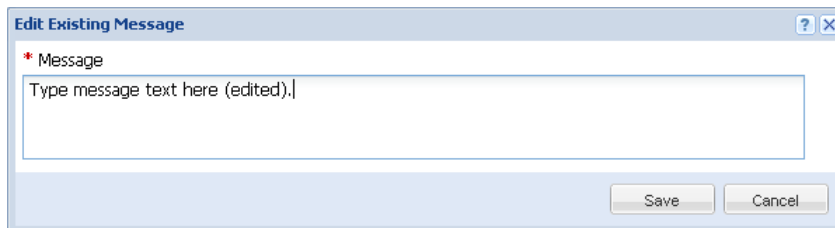
2. Type the message in the text field.

3. Click **Save**. The message is added to the **Message Book** and made available to GeoPro device users.

## Editing a Message

To edit an existing message:

1. On the **Message Book** tab, select a message and then click **Edit** . The **Edit Existing Message** dialog box appears.

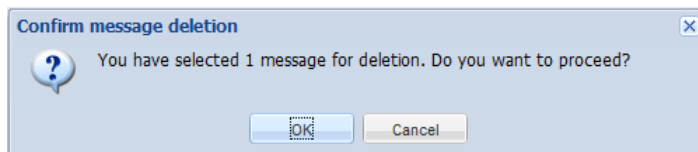


2. Make changes to the message text.
3. Click **Save**.

## Deleting a Message

To delete a message:

1. On the **Message Book** tab, select a message and then click **Delete** . The **Confirm message deletion** dialog box appears.



2. Click **OK**. The message is removed from the **Message Book**.

## Managing Response Teams

When a Tenant is first created, the Super Admin is automatically assigned to the Default Response Team, and the Default Response Team is automatically assigned to all users who are subsequently added to the Tenant. This ensures that at least one person is notified in the event that an emergency or heightened risk situation occurs. Once users are added to the Tenant and external contacts are added to the Global Address Book, you need to revisit the **Response Teams** tab and modify the response team and, if needed, create additional response teams.

**NOTE:** If you create additional response teams, you have to go back to each user who needs the new response team and explicitly assign the new response team to them. If you don't, the users will continue to have the 'Default Response Team' as the emergency and escalation response teams.

Use the **Response Team** tab to create new teams, and edit or delete existing teams. Once created, you can assign users to emergency and escalation response teams. There is a default team, called "Default response team", assigned to users when their accounts are created. The Default Response Team members can be modified, but the Default Response Team itself cannot be empty or deleted.

Map

Check-in

Emergency (0)

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Users

Address Book

Message Book

Response Teams

Devices

Waypoints

Add

Edit

Delete

Team Name	Assigned	Default
Default response team	yes	yes
External First Responders	yes	no
Field Technicians	yes	no

## Adding a New Response Team

To add a new response team:

- On the **Configuration > Response Teams** tab, click **Add** . The **Add New Team** dialog box appears.

Add New team
 ?
×

*Response Team Name: North Face RT

*Members:
 

88 Available team members
 To add items: drag and drop to Selected team members

User Type	First Name	Last Name	Email	MobileNumber	GeoPro Address
Tenant User	Tester2	Tester2	12tester2@user.com		12tester2@user.ge...
Tenant User	Tester3	Tester3	12tester3@user.com		12tester3@user.ge...
Tenant User	U204	U204	u204@user.com	4165555551	u204@user.geopro
Tenant User	U207	U207	u207@user.com	4165555551	u207@user.geopro
Tenant User	U208	U208	u208@user.com	4165555551	u208@user.geopro
Tenant User	U209	U209	u209@user.com	4165555551	u209@user.geopro

1 Selected team member
 To remove items: drag and drop to Available team members

User Type	First Name	Last Name	Email	MobileNumber	GeoPro Address
Tenant User	U205	U205	u205@user.com	4165555551	u205@user.geopro

Save

Cancel

- Enter a Response Team name and drag-and-drop a user from the **Available team members** area to the **Selected team members** area. To select multiple users, use the [Ctrl] or [Shift] keys.

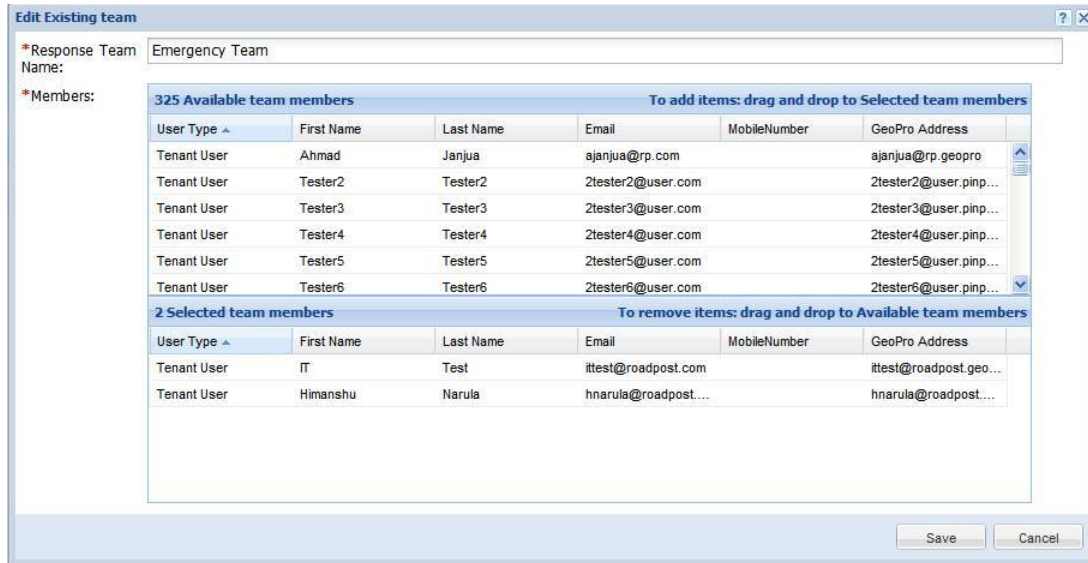
**NOTE:** To remove a user from the team membership, drag-and-drop the user from the **Selected team members** area to the **Available team members** area.

- Click **Save**. The new team is added to the Response Teams list, but it does not have any users assigned to it. For details, refer to the [Assigning a Response Team to a User](#) section.

## Editing Response Team Information

To edit the information of an existing team:

- On the **Response Teams** tab, select a team and then click **Edit** . The **Edit Existing Team** dialog box appears.



User Type	First Name	Last Name	Email	MobileNumber	GeoPro Address
Tenant User	Ahmad	Janjua	ajanjua@rp.com		ajanjua@rp.geopro
Tenant User	Tester2	Tester2	2tester2@user.com		2tester2@user.pinp...
Tenant User	Tester3	Tester3	2tester3@user.com		2tester3@user.pinp...
Tenant User	Tester4	Tester4	2tester4@user.com		2tester4@user.pinp...
Tenant User	Tester5	Tester5	2tester5@user.com		2tester5@user.pinp...
Tenant User	Tester6	Tester6	2tester6@user.com		2tester6@user.pinp...

User Type	First Name	Last Name	Email	MobileNumber	GeoPro Address
Tenant User	IT	Test	ittest@roadpost.com		ittest@roadpost.geo...
Tenant User	Himanshu	Narula	hnarula@roadpost...		hnarula@roadpost....

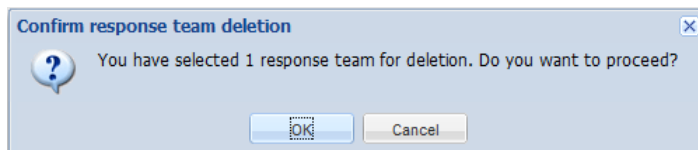
2. Make changes to the team information or membership.
3. Click **Save**.

**NOTE:** You cannot save an empty **Response Team** dialog box. To delete a response team, you must click **Delete**.

## Deleting a Response Team

To delete a response team:

1. On the **Response Team** tab, select a team and then click **Delete** . The **Confirm response team deletion** dialog box appears.



2. Click **OK**. The response team is removed from the list.

**NOTE:** You cannot delete a response team that has users assigned to it. Use the **Assign Response Teams to Users** dialog box on the **User** tab to first assign a different response team, and then delete the team. You cannot delete the 'Default Response Team'.

## Glossary

Term	Definition
Administrator	This is a GeoPro Web Application user with administration authority to define enterprise-specific application behavior, create other users (including Administrators), and define all user profiles. User access permissions are defined by role-based permissions.
Breadcrumb	An X, Y coordinate without descriptive information that is generally one of a series of points collected when GPS is tracking and collecting geographical information. Similar terms to describe the same principle are 'Tracks', 'Trails', or 'Paths'.
Device Manager	User portion of the GeoPro Web Application.
Device Manager User	Refers to a user who has been given a device and is logged in to the Device Manager to administer their device. The portion of the GeoPro Web Application accessed by a Device Manager user is not the same as other GeoPro Web Application users. The Device Manager user accesses only their own historical information including their profile, predefined messages and addresses.
GeoPro device user	Refers to any user that is interacting with the GeoPro compatible device at any given moment. The GeoPro <i>Messenger</i> is 100% compatible with the functionality as described. The features of other GeoPro compatible devices may vary the functionality that is supported in the GeoPro Web application or on the device itself.
GeoPro <i>Messenger</i>	The proprietary GeoPro <i>Messenger</i> branded handheld device communicating with the GeoPro and Iridium networks.
GeoPro Web Application	The GeoPro Web Application is responsible for all business logic, access control and database transactions.
GeoPro Web Application Admin	This Administrative user's main role is to work with the GeoPro Web Application. They manage devices, assign devices and communicate with device users, etc.
IMEI	International Mobile Equipment Identifier – a unique 15-digit sequence assigned to each device.
Message	Typically refers to text messages (SMS or email).
Metadata	Data about data – descriptive information stored but not necessarily displayed, about waypoints, in this case, including the name, description, category, location, and creator's name of the actual waypoint.
NAL SHOUT Nano	The SHOUT Nano device manufactured by NAL which is compatible with the GeoPro solution and operates on the Iridium network.
OTA	Over the air transmission of signals from the device to the Web Application.
SBD	Short Burst Data – Iridium data protocol used by GeoPro compatible devices to communicate over the Iridium satellite network.
Tenant	The enterprise or government customer; also applies to consumers when the consumer model is activated.
Waypoint	A special type of X, Y coordinate designated with a name – possibly describing the location or attributes associated with the location. Waypoints generally have associated metadata that contain descriptive information, including the author, time and date the waypoint was created.



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